

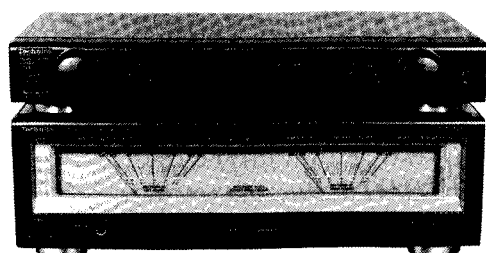
Service Manual

Power Amplifier

Amplifier

SE-A900S

SU-C800U



SE-A900S

Remote Control Transmitter



Colour

(K) : Black

Areas

Suffix for Model No.	Area	Colour
(E)	Europe	(K)
(EB)	Britain	
(EG)	Germany and Italy	
(GC)	Asia, Latin America, Middle East and Africa	
(GN)	Oceania	

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

Specifications (DIN 45 500)

20 Hz – 20 kHz continuous power output both channels driven	2 × 70 W (8 Ω)
1 kHz continuous power output both channels driven (THD: 1%)	2 × 85 W (8 Ω) 2 × 120 W (4 Ω)
63 Hz – 12.5 kHz continuous power output both channels driven (THD: 0.7%)	2 × 80 W (8 Ω) 2 × 105 W (4 Ω)
Total harmonic distortion rated power at 20 Hz – 20 kHz	0.01% (8 Ω)
Intermodulation distortion (50 Hz: 7 kHz = 4:1, SMPTE)	0.007% (8 Ω)
Residual hum and noise	0.3 mV
Damping factor	70 (8 Ω) 35 (4 Ω)
Headphones output level/impedance	540 mV/330 Ω (Ø 6.3)
Load impedance	
A or B, BI-WIRING	4 Ω – 16 Ω
A and B	8 Ω – 16 Ω
Input sensitivity/impedance	1 V/33 kΩ
S/N (rated power, 4 Ω)	95 dB (110 dB, IHF '66)
Frequency response	5 Hz – 70 kHz (+0, – 3 dB) +0 dB, – 0.5 dB (20 Hz – 20 kHz)

System: SU-A900D

Control amplifier	SU-C800U
Power amplifier	SE-A900S

■ GENERAL

Power consumption 285 W

Power supply

For (E) and (EG) areas 50 Hz/60 Hz AC, 230 V

For (EB), (GN) areas 50 Hz/60 Hz AC, 230 V – 240 V

For (GC) area only 50 Hz/60 Hz AC, 110 V – 127 V / 220 V – 240 V

Dimensions (W × H × D) 430 × 136 × 344 mm

Weight 9.8 kg

Notes:

- Design and specifications are subject to change without notice. Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

© 1995 Matsushita Electric Industrial Co., Ltd.
All rights reserved. Unauthorized copying
and distribution is a violation of law.

Contents

	Page		Page
Before Repair	2	Operation Check and	
Protection Circuitry	2	Main Component Replacement Procedures	10~14
Accessories	2	Measurements and Adjustments	14
Caution for AC Mains Lead	3	Schematic Diagram	15~20
Connecting the Audio Components	4	Printed Circuit Board Diagram	21~25
Connecting the Speakers and Power Supply	5	Wiring Connection Diagram	26
Front Panel Controls	6	Block Diagram	27
Listening to Sound	7, 8	Replacement Parts List	28~31, 34
Recording	9	Cabinet Parts Location	32, 33
		Packaging	35

Before Repair

- Turn off the power supply. Using a 10 Ω , 10 W resistor, connect both ends of power supply capacitors (C701, C702) in order to discharge the voltage.
- Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230 V/240 V/110V – 127 V/220V – 240V.

Power supply voltage	AC 230 V	AC 240 V	AC 110V – 127 V	AC 220V – 240V
Consumed current 50 Hz	160 ~ 320 mA	160 ~ 320 mA	310 ~ 620 mA	160 ~ 320 mA

Protection Circuitry

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is switched ON.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are “shorted”, or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

- Switch OFF the power.
- Determine the cause of the cause of the problem and correct it.
- Switch ON the power once again.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

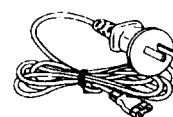
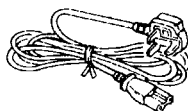
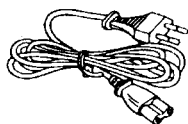
Accessories

- AC power supply cord

(E, EG, GC) areas : (RJA0019-2K) 1

(EB) area : (VJA0733) 1

(GN) area : (RJA0036-K) 1



- Stereo connection cable

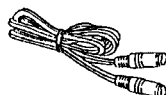
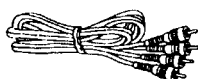
(SJP2276) 1

- Amplifier connection cable

(RJL6D001B10) 1

- Power plug adaptor [for (GC) area only]

(SJP5213-2) 1



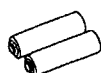
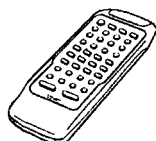
- Remote control transmitter

(RAK-SU180WH) 1

- Batteries

(UM-4, “AAA”, R03) 2

Note: These are available on sales route.



■ Caution for AC Mains Lead

[(EB) area code model only]

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

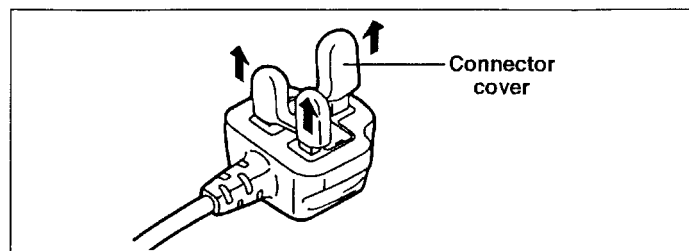
This apparatus was produced to BS 800.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol .

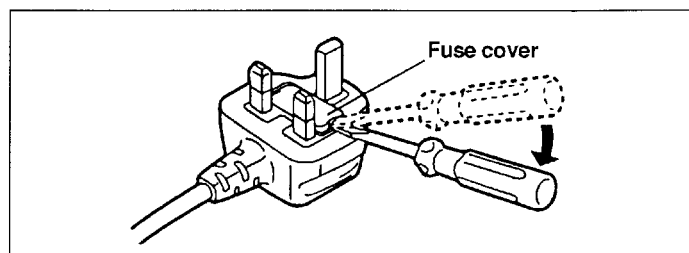
Before use

Remove the connector cover as follows.

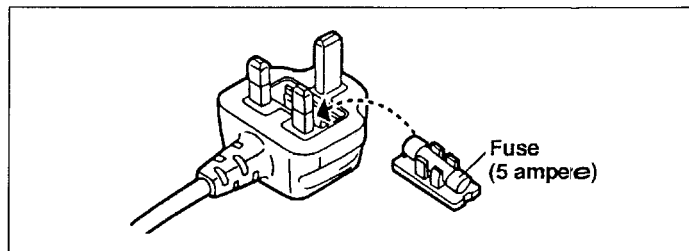


How to replace the fuse

1. Remove the fuse cover with a screwdriver.



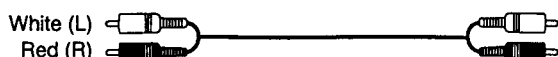
2. Replace the fuse and attach the fuse cover.



■ Connecting the Audio Components

Make sure that the power supply for all components has been turned off before making any connections.

Stereo connection cable

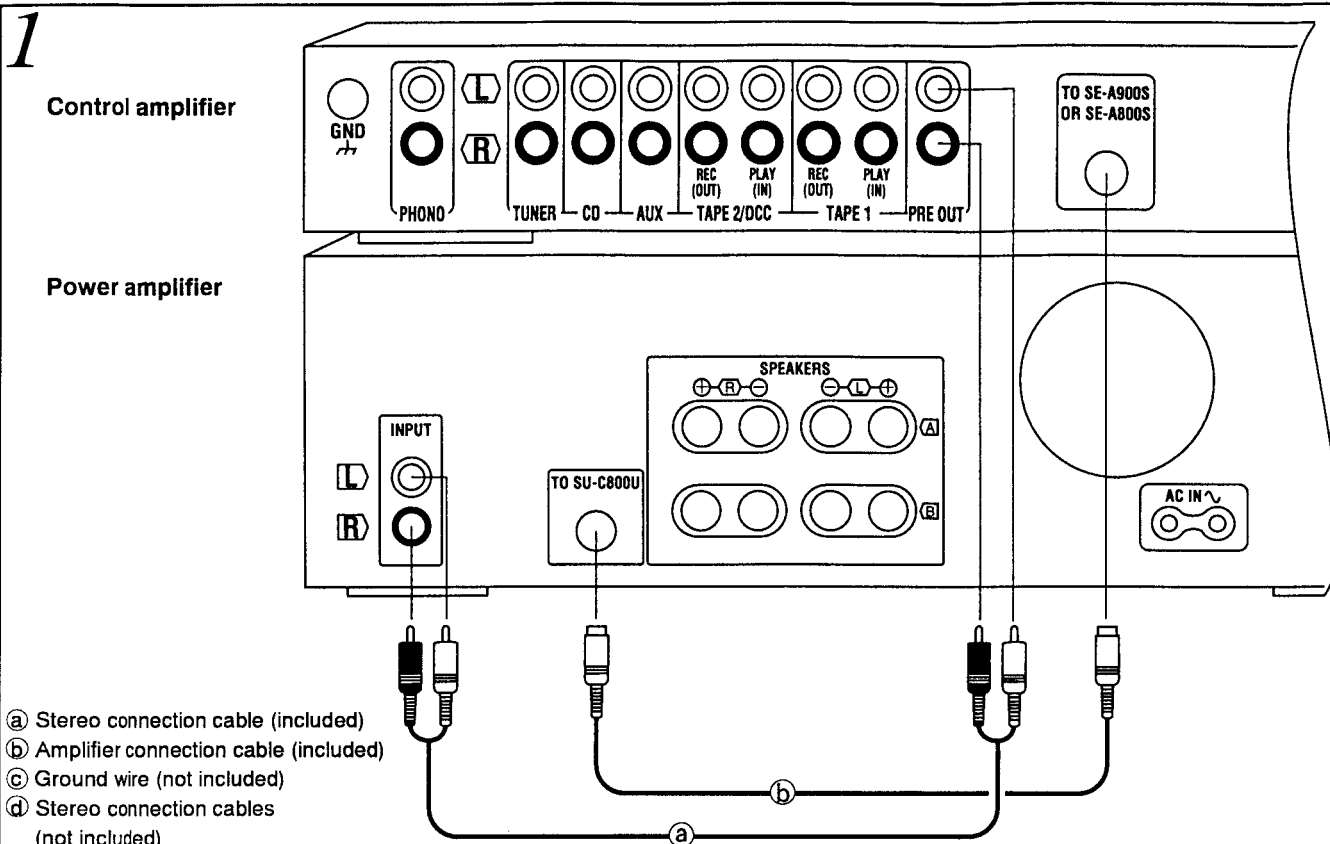


If connecting a graphic equalizer **A**
Connect it between the PRE OUT terminals of the control amplifier and INPUT terminals of the power amplifier.

1

Control amplifier

Power amplifier

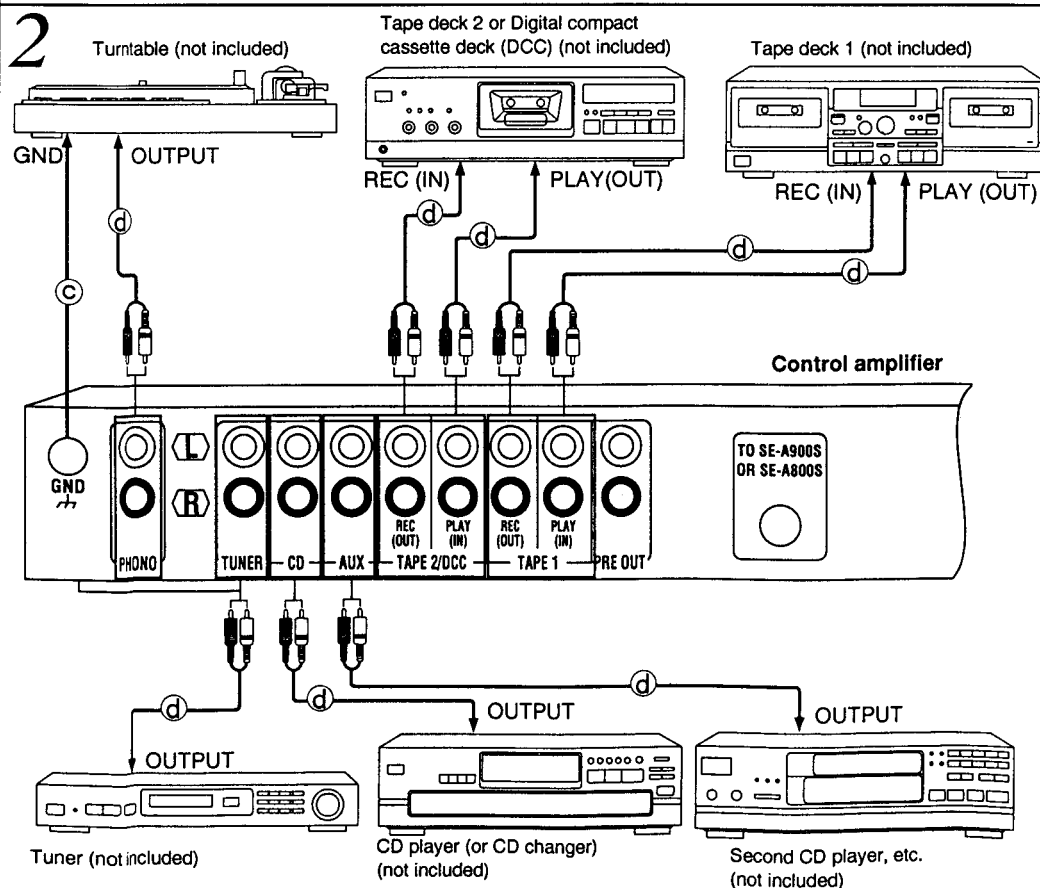


2

Turntable (not included)

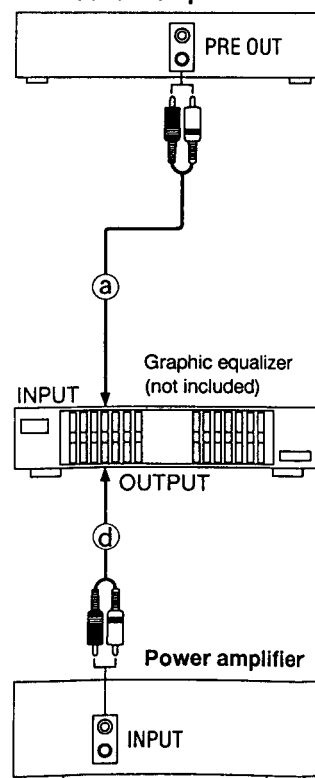
Tape deck 2 or Digital compact cassette deck (DCC) (not included)

Tape deck 1 (not included)

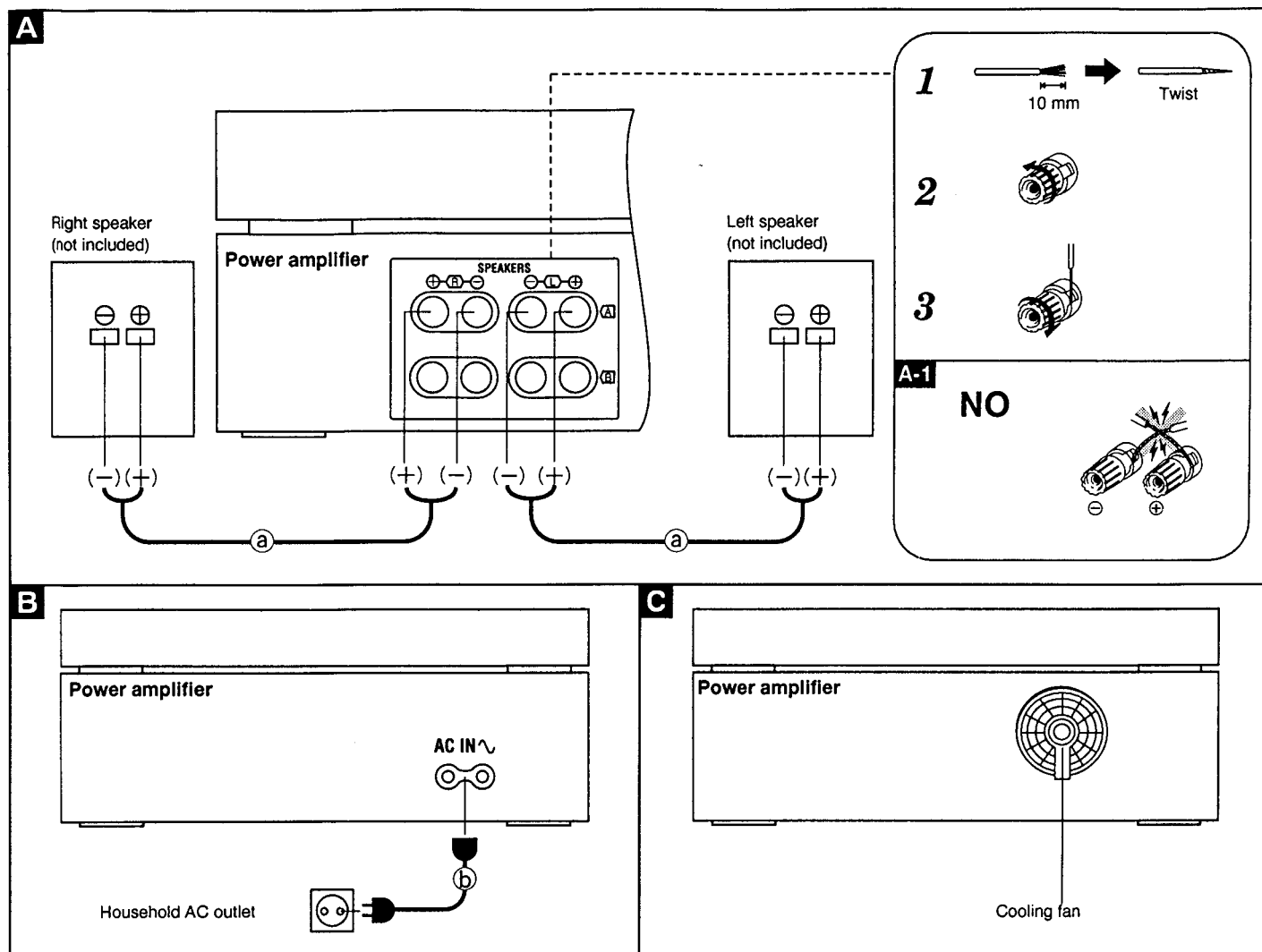


A

Control amplifier



■ Connecting the Speakers and Power Supply



Connecting the speakers **A**

Ⓐ Speaker cables (not included)

The wires which are connected to the positive (+) terminals of the amplifier should be connected to the positive (+) terminals of the speakers. The negative (-) terminals should be connected in a similar way.

“B” terminals

For connection to a second pair of speakers.

Speaker impedance

- When only the “A” or only the “B” terminals are used: 4–16 Ω
- When both the “A” and the “B” terminals are used simultaneously: 8–16 Ω

CAUTION **A-1**

To prevent damage to circuitry, never short-circuit the positive (+) and negative (-) speaker wires.

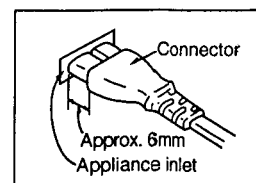
Connecting the power supply **B**

Connect the power supply only after all other connections have been made.

Ⓑ AC power supply cord (included)

Insertion of Connector

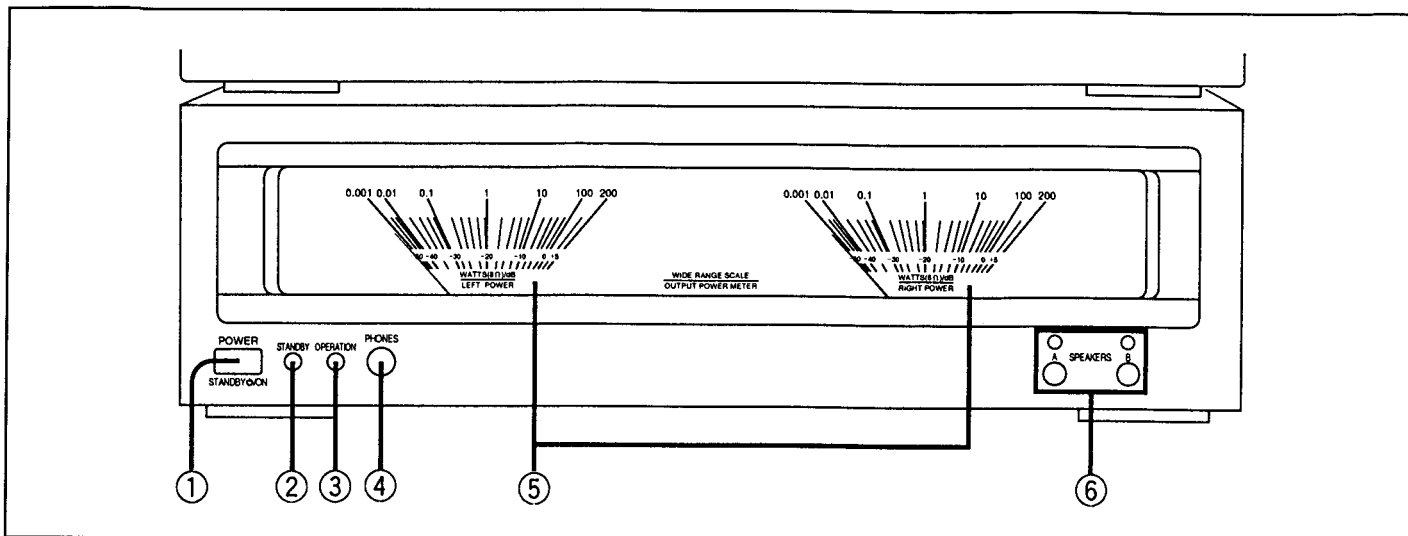
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing. However there is no problem using the unit.



Cooling fan **C**

The cooling fan operates at high power output levels only.

■ Front Panel Controls



Power amplifier

① Power "STANDBY" / ON switch

(POWER, STANDBY / ON)

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

Note

This switch will not operate when the control amplifier is in standby mode.

② "STANDBY" indicator (STANDBY)

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

③ Operation indicator (OPERATION)

This indicator illuminates when the power amplifier is in the normal operating condition.

If the (+) and (-) wires of the speaker cables are shorted, or if a circuit abnormality such as DC voltage in the power output to the speakers is detected, the protection circuit will operate and the "OPERATION" indicator will turn off.

④ Headphones jack (PHONES)

(ϕ 6.3, 330 Ω)

⑤ Power meters

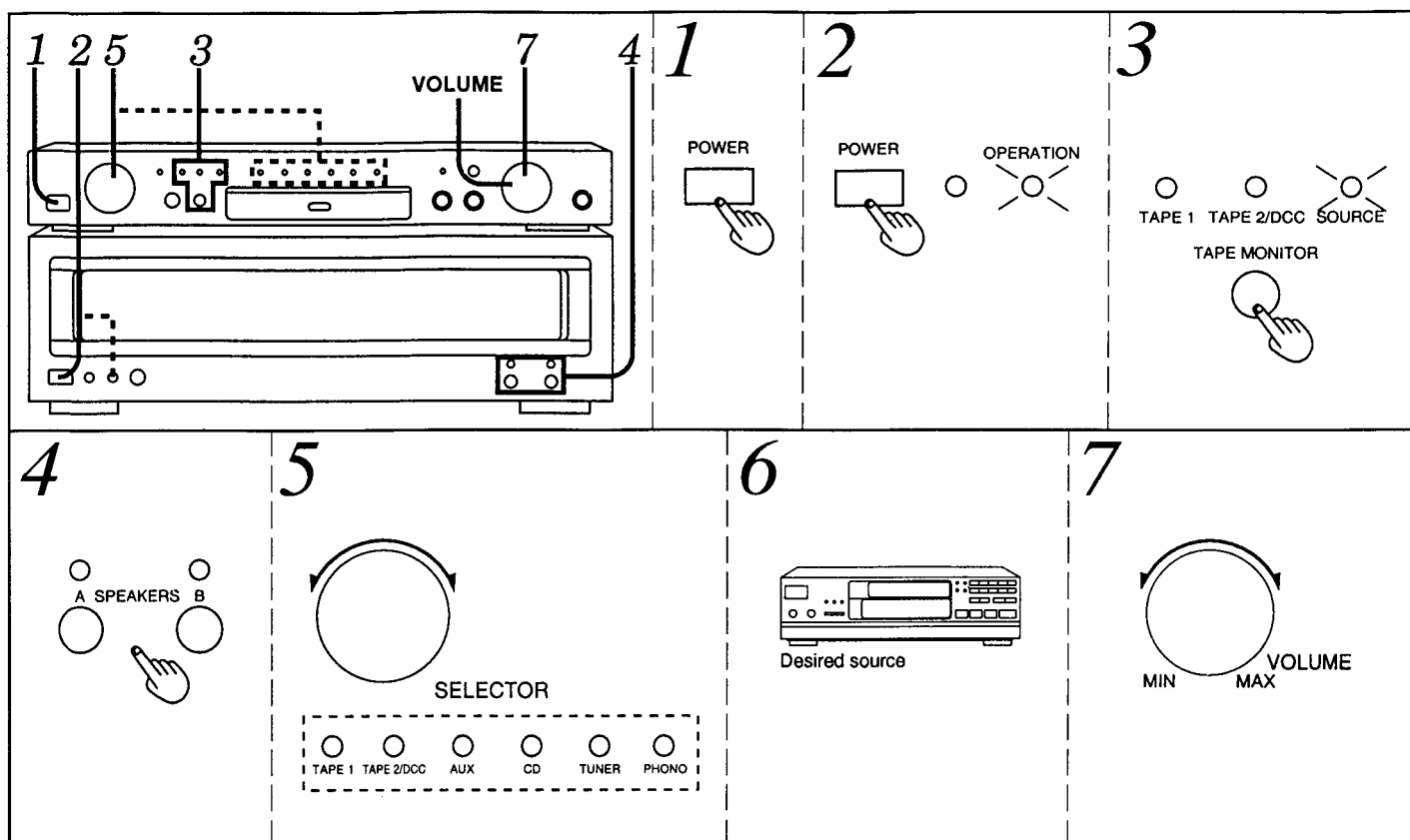
Indicate the output (watts) of this unit.

When speakers having an impedance of 8 Ω are connected, the output level will be as indicated. However, if the speaker impedance is 16 Ω , the output level will be one-half the indicated value, and if the impedance is 4 Ω , the output level will be double the indicated value.

$$\text{Actual output} = \text{meter indication} \times \frac{8 (\Omega)}{\text{impedance of the speakers } (\Omega)}$$

⑥ Speaker select buttons/indicators (SPEAKERS)

■ Listening to Sound



Before operation, set VOLUME to the "MIN" position.

1 Press POWER of the control amplifier.

2 Press POWER of the power amplifier.

The "OPERATION" indicator will illuminate after approximately 4 seconds.

Once the power amplifier has been turned on, both amplifiers can then be turned on or to standby mode using POWER on the control amplifier.

3 Press TAPE MONITOR so that the "SOURCE" indicator illuminates.

Each time the button is pressed, the indication will change as follows.

TAPE 1 → TAPE 2/DCC → SOURCE

4 Press A and/or B to select the speaker system(s) to be used.

The corresponding indicator(s) will illuminate.

5 Turn SELECTOR to select the desired source.

The indicator which corresponds to the selected input source will illuminate.

TAPE 1: Tape deck 1

TAPE 2/DCC: Tape deck 2 or DCC

AUX: Component connected to the AUX terminals

CD: CD player (or CD changer)

TUNER: Tuner

PHONO: Turntable

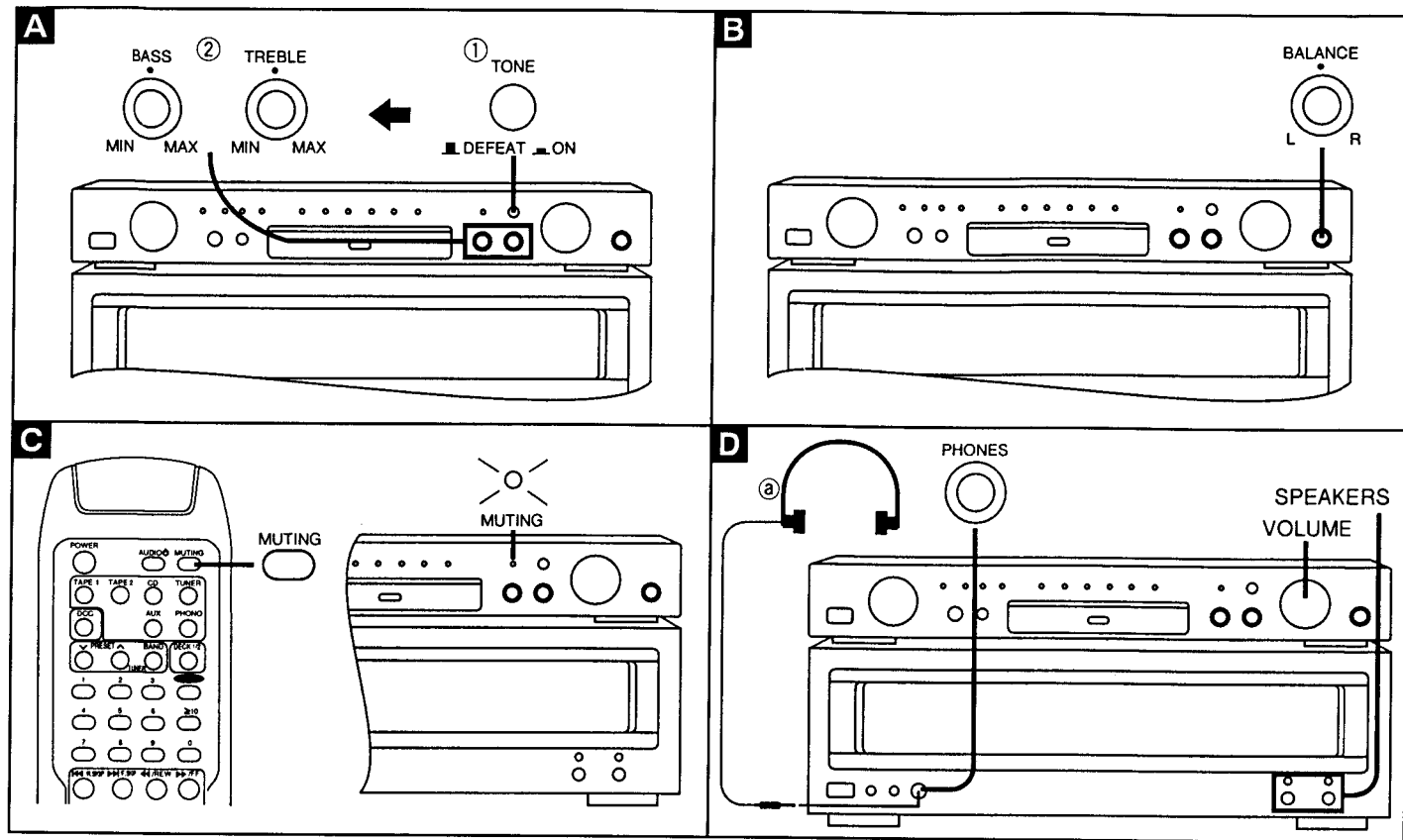
6 Start the desired source.

(Refer to the appropriate operating instructions for details.)

7 Turn VOLUME to adjust the volume level.

After listening is finished

Be sure to reduce the volume level, and turn off the units by pressing POWER of the control amplifier.



To adjust the tone quality **A**

- ① Press TONE in to the “**ON**” position.
 - ② Turn BASS to adjust the low-frequency sound.
Turn TREBLE to adjust the high-frequency sound.
- If listening without adjusting the tone quality, press TONE so that it is at the “**DEFEAT**” position.

To adjust the sound balance **B**

Turn BALANCE to adjust the left/right sound balance.

To mute the sound level **C**

Press **MUTING** on the remote control transmitter.
(The “MUTING” indicator on the amplifier will illuminate.)

Press once again to return to the previous volume level. (The “MUTING” indicator will turn off.)

To listen through headphones **D**

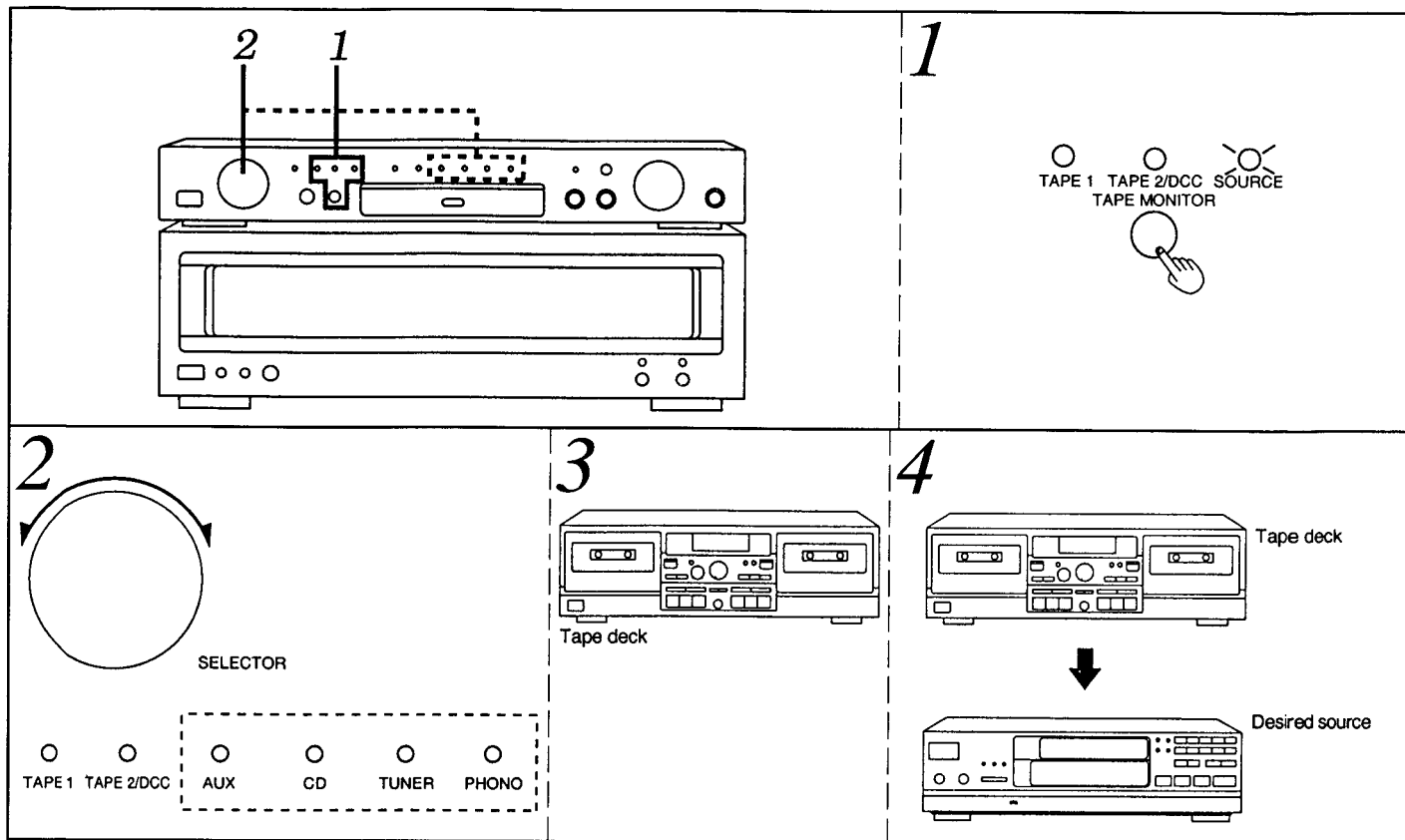
Use **VOLUME** to reduce the volume level, and connect the headphones.

- ⑧ Headphones (not included)
Plug type: 6.3 mm phone plug stereo type

If sound from speakers is not wanted, press **SPEAKERS (A)** and/or **(B)** to turn off the speaker indicators.

Note
Avoid listening for prolonged periods of time to prevent hearing damage.

■ Recording



It is possible to record from units which are connected to the rear "AUX", "CD", "TUNER" or "PHONO" terminals to cassette tape decks or DCC decks which are connected to the "TAPE 1" or "TAPE 2/DCC" terminals.

- 1** Press **TAPE MONITOR** so that the "SOURCE" indicator illuminates.
- 2** Turn **SELECTOR** to select the desired source to be recorded.
AUX: Component connected to the AUX terminals
CD: CD player (or CD changer)
TUNER: Tuner
PHONO: Turntable
- 3** Prepare the tape deck for recording.
Refer to the operating instructions for the tape deck for detailed adjustment of the recording level, etc.
- 4** Start the tape deck for recording, and play the source.

Recording from tape to tape

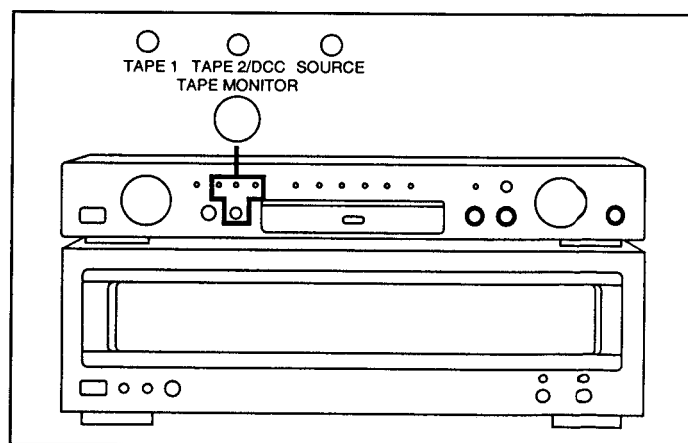
It is possible to record from tape deck 1 to tape deck 2 (or DCC) and vice versa.

To record from tape deck 1 to 2

1. Press **TAPE MONITOR** so that the "SOURCE" indicator illuminates.
2. Turn **SELECTOR** so that the "TAPE 1" indicator illuminates.
3. Begin tape deck 2 for recording and tape deck 1 for playback.

To record from tape deck 2 to 1

1. Press **TAPE MONITOR** so that the "SOURCE" indicator illuminates.
2. Turn **SELECTOR** so that the "TAPE 2/DCC" indicator illuminates.
3. Begin tape deck 1 for recording and tape deck 2 for playback.



To check the sound recorded while recording is being made

If a cassette tape deck with 3 heads is connected to the "TAPE 1" or "TAPE 2/DCC" terminals, it is possible to check the sound being recorded onto the tape.

Press **TAPE MONITOR** to select the deck (tape deck 1 or 2) and set the monitor switch on the tape deck to "TAPE".

TAPE 1: when recording on tape deck 1

TAPE 2/DCC: when recording on tape deck 2

Note

Be sure to switch the illuminated tape monitor indicator back to "SOURCE" once you have finished monitoring the sound being recorded.

■ Operation Check and Main Component Replacement Procedures

- NOTE**
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.

2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

3. Select items from the following index when checks or replacement are required.

4. Illustrated screws are equivalent to actual size.

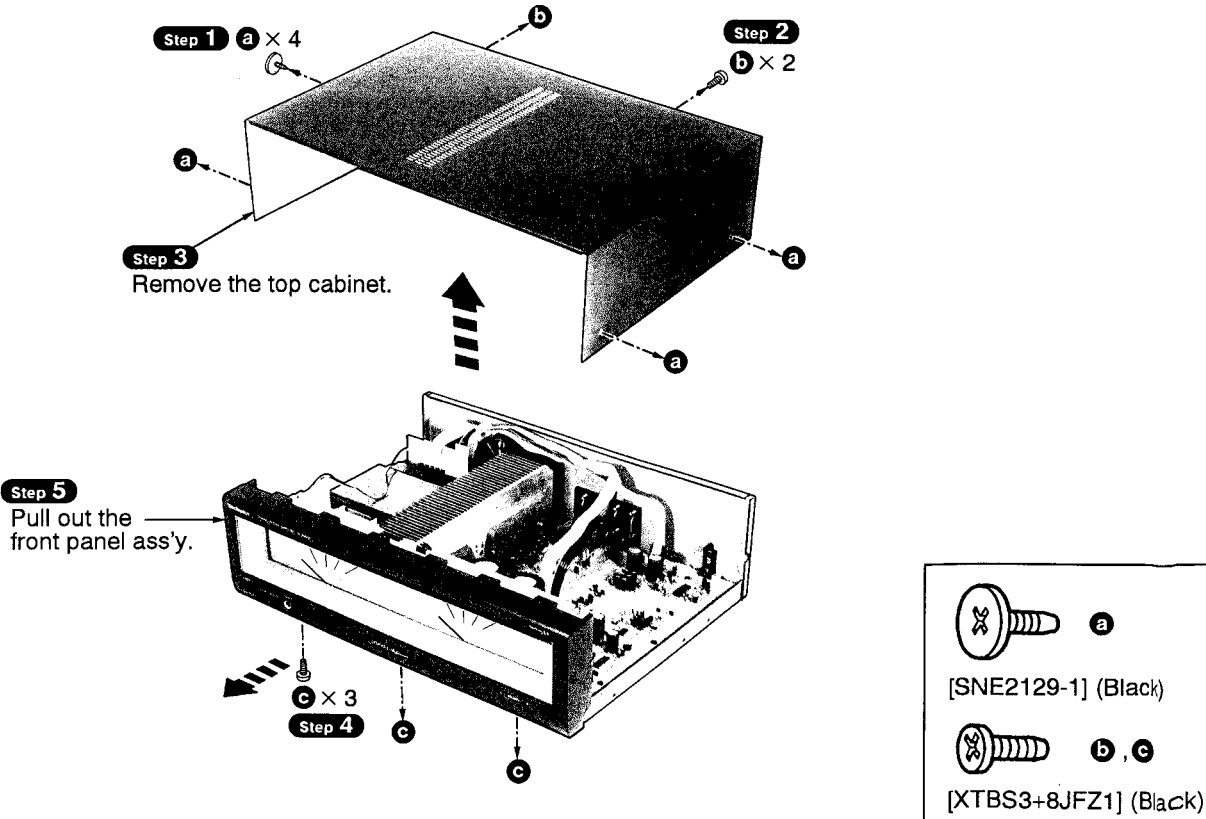
5. Refer the parts No. on the page of “Main Component Replacement Procedures”, if necessary.

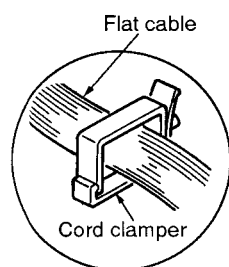
● Contents

•Checking Procedure for each P.C.B.	Page.
1.Checking for the main P.C.B..	10,11.
•Main Component Replacement Procedures	
1.Replacement for the foot.	12.
2.Replacement for the power IC and regulator transistor.	12,13.
3.Replacement for the fan motor.	13.
4.Replacement for the meter ass'y.	14.

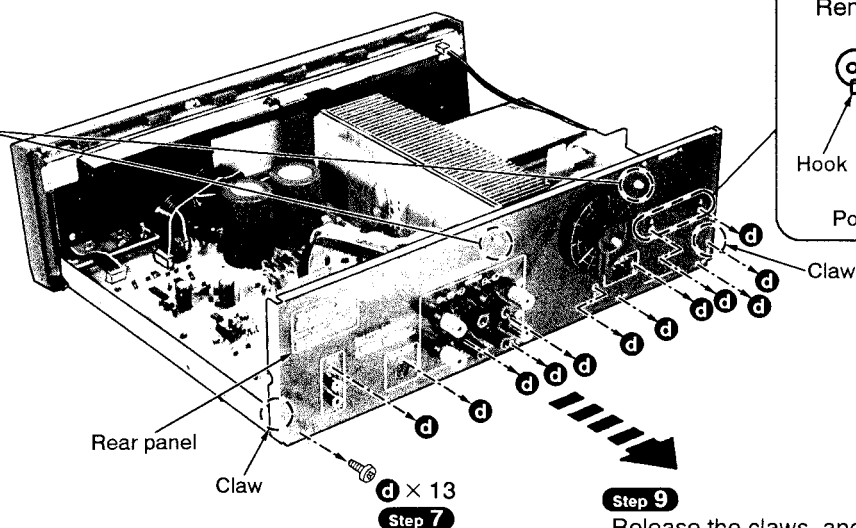
■ Checking Procedure for each P.C.B.

1. Checking for the main P.C.B.

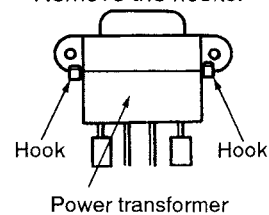


**Step 6**

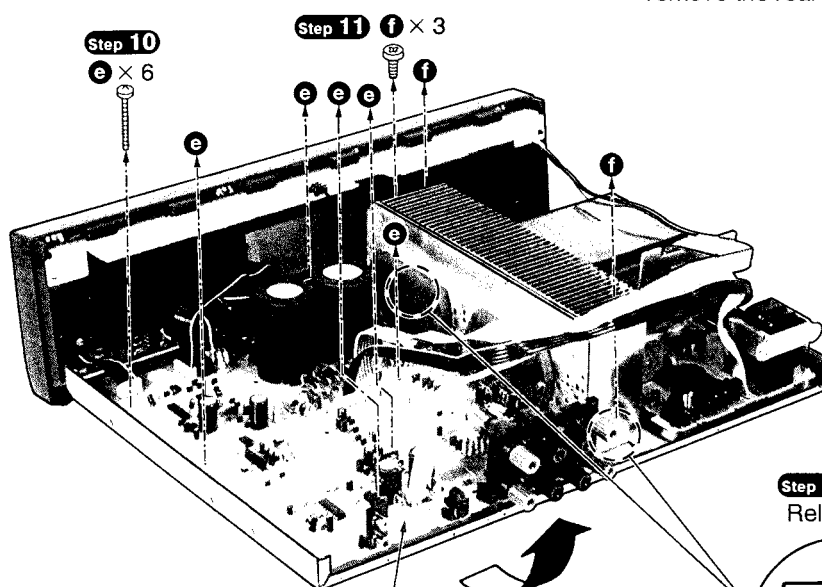
Remove the flat cable from cord clamber.

**Step 8**

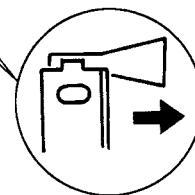
Remove the hooks.

**Step 9**

Release the claws, and then remove the rear panel.

**Step 12**

Release the hooks.

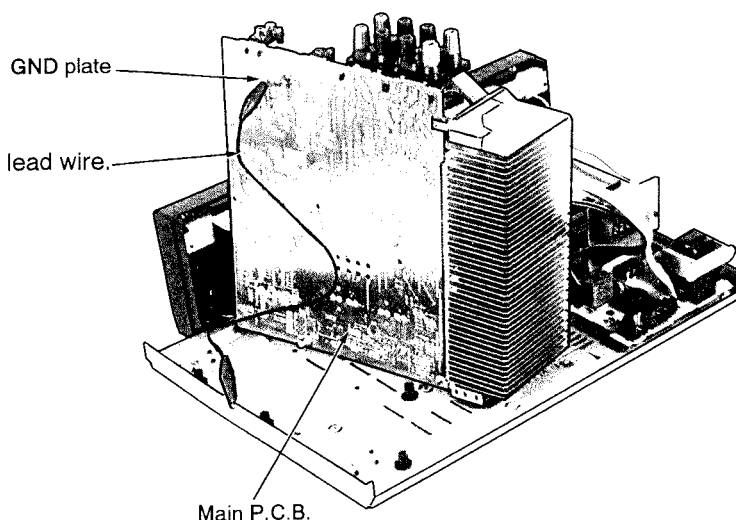
**Step 13**

Raise the main P.C.B.

• Check the main P.C.B. as shown below.

Step 14

Connect the lead wire.



[XTBS3+8JFZ 1](Black)



[XTB3+20JFZ 1](Black)



[XTB3+8JFZ 1](Black)

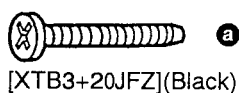
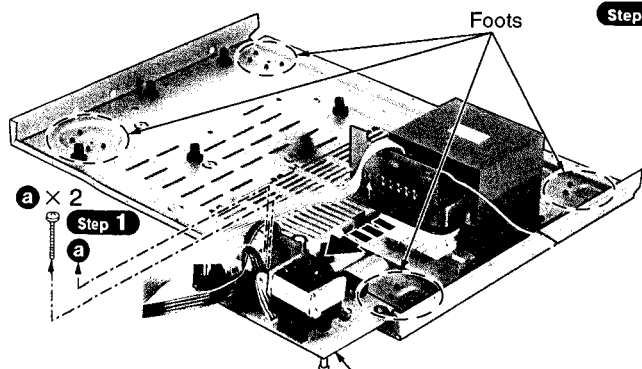
Main Component Replacement Procedures

1. Replacement for the foot

Follow the **Step 1** ~ **Step 13** in item 1 on checking procedure for each P.C.B. on pages 10 and 11.

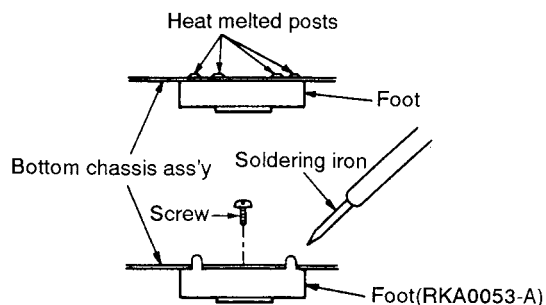
Step 3 Remove the 4 heat melted posts on the bottom chassis ass'y with a pair of nippers or similar tool.

Step 4 To replace the foot(RKA0053-A) on the bottom chassis ass'y melt the 4 posts with a soldering iron or install it with a screw (XTB3+6J)



Step 2

Remove the power supply P.C.B.

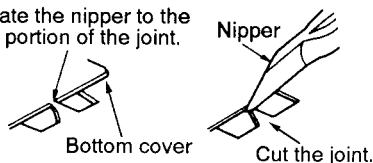


2. Replacement for the power IC and regulator transistor

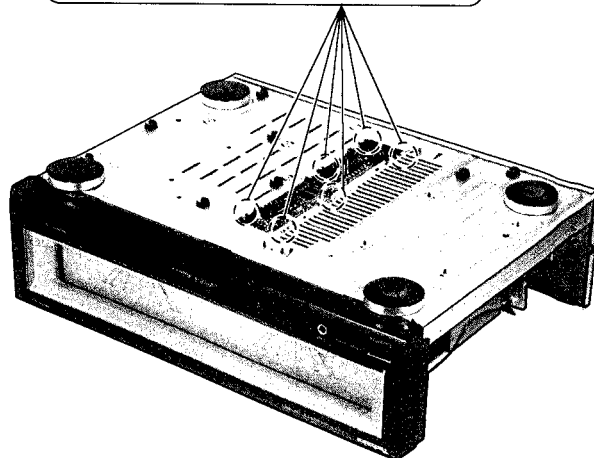
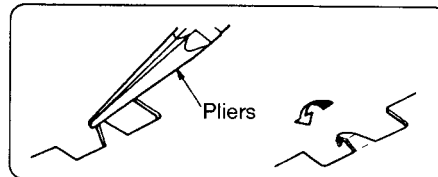
Follow the **Step 1** ~ **Step 3** in item 1 on checking procedure for each P.C.B. on page 10.

Step 1 Cut the joints as shown below.(6 portions)

Locate the nipper to the thin portion of the joint.

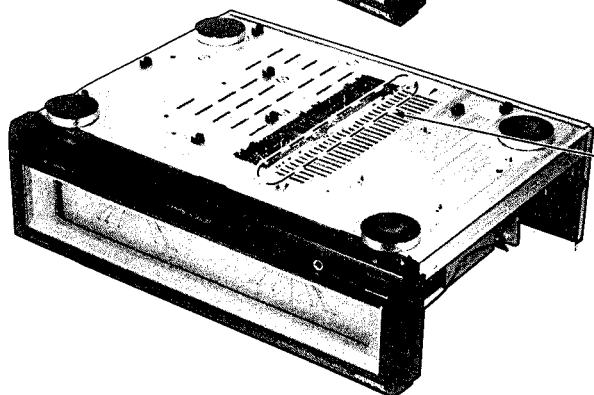


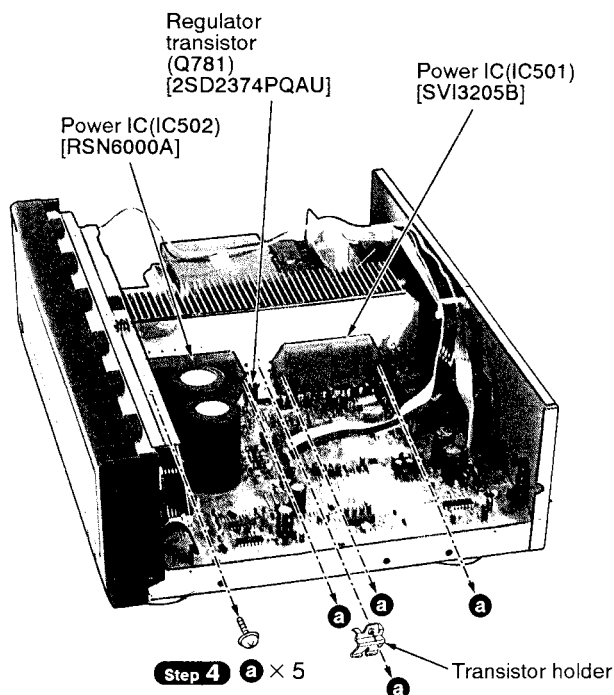
Step 2 Fold the joints.(6 portions)



Step 3

Unsolder the terminals of power IC and regulator transistor.

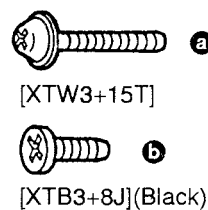
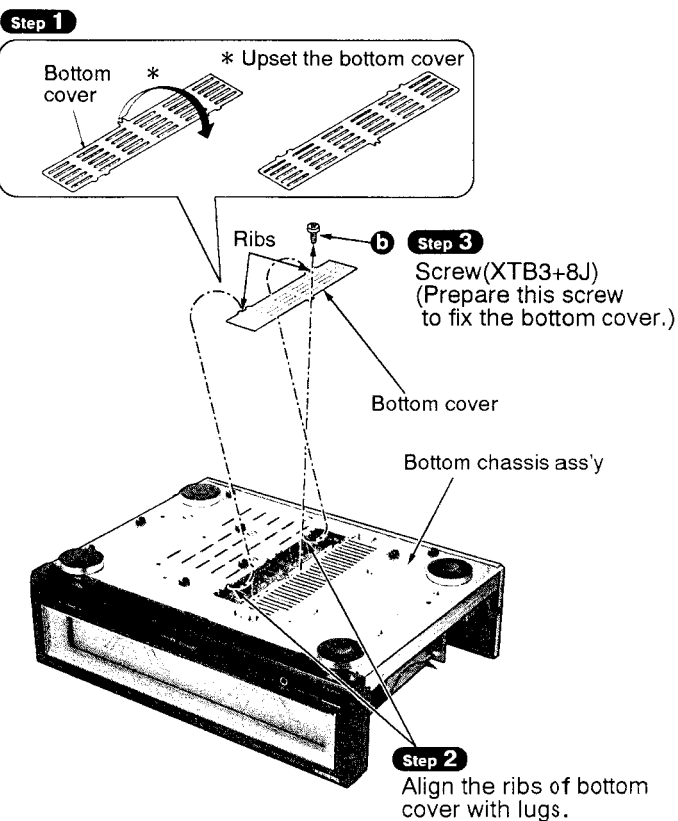




CAUTION

1. After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002) between the heat sink and the power IC or regulator transistor (Radiation of power IC).
2. Tighten enough the screws (a) after replacing the power IC and regulator transistor. Otherwise, the heat radiation works little.

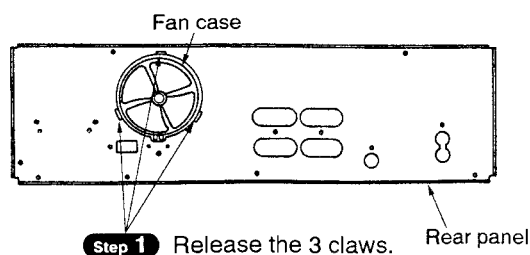
Installation of the bottom cover after replacement



(Prepare this screw to fix the bottom cover.)

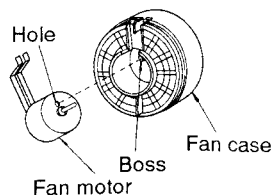
3. Replacement for the fan motor

- Follow the Step 1 ~ Step 9 in item 1 on checking procedure for each P.C.B. on pages 10 and 11.

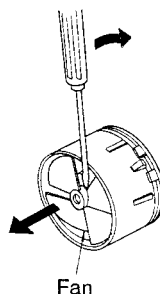


NOTE

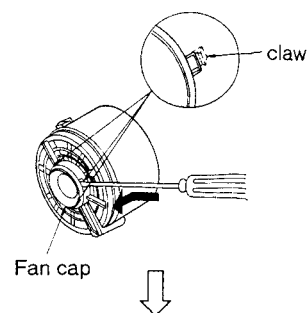
When replacing the fan motor, align the boss of the fan case with the hole of the fan motor.



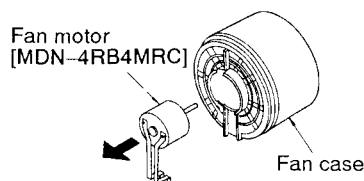
Step 2 Put a screwdriver at the root of the fan and remove it.



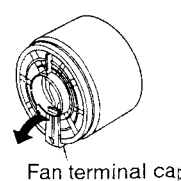
Step 3 Remove the fan cap.



Step 5 Remove the fan motor.

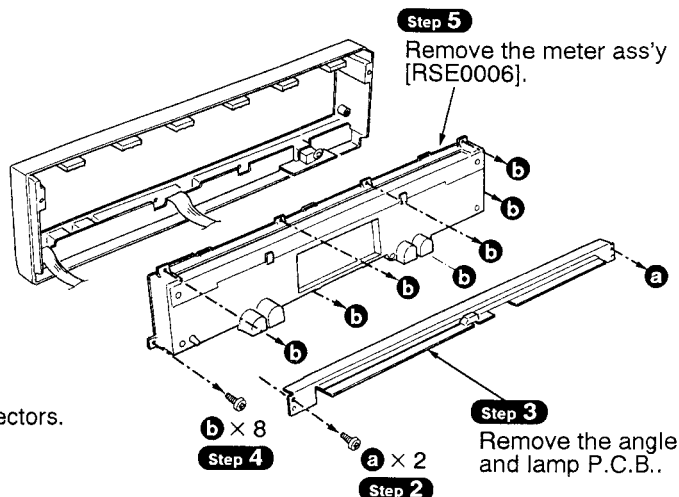
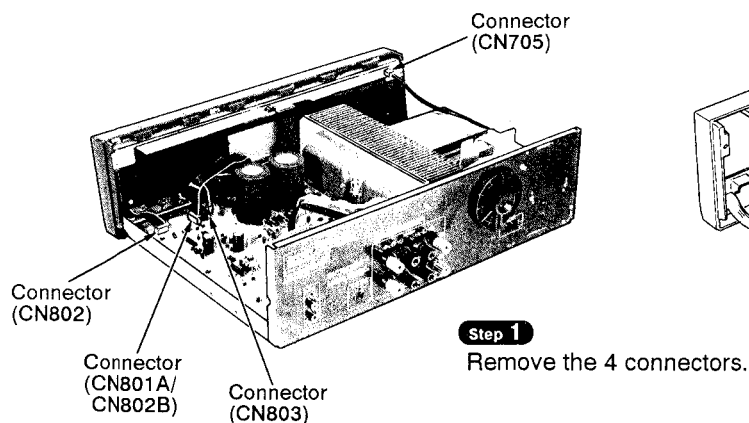


Step 4 Remove the fan terminal cap.



4. Replacement for the meter ass'y

- Follow the **Step 1** ~ **Step 5** in item 1 on checking procedure for each P.C.B. on page 10.



Measurements and Adjustments

Measuring Instruments and Special Tools

- AC electronic voltmeter (AC EVM)
- AF oscillator

Power Meter Adjustment

- Test equipment connection is shown in Fig. 1.
- Before turning **ON** the set, adjust **VR909 (L-ch)** and **VR910 (R-ch)** to mechanical center position (shown in Fig. 2).
- Turn the power **ON**, make sure that the power meter is mechanically adjusted to **0** point (shown in Fig. 3).
- Apply a **1 kHz** signal to the input terminal so that the output voltage of speaker terminal is **8.94 V** (adjust the signal level with the attenuator of AF oscillator).
- Adjust **VR909 (L-ch)** and **VR910 (R-ch)** so that the power meter indicates **10 W** (shown in Fig. 4).

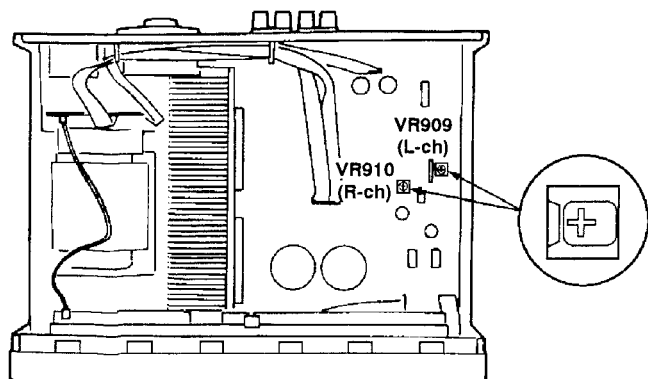


Fig. 2

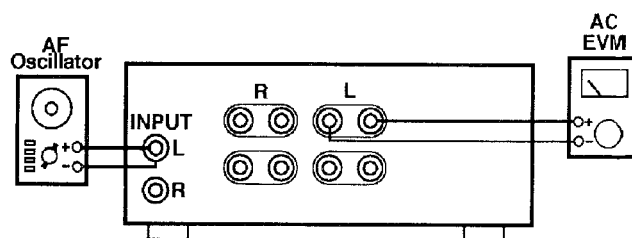


Fig. 1

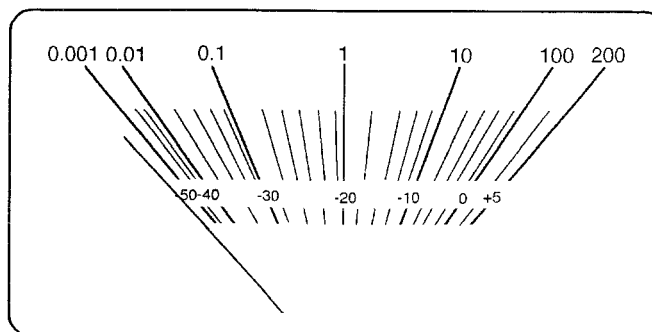


Fig. 3

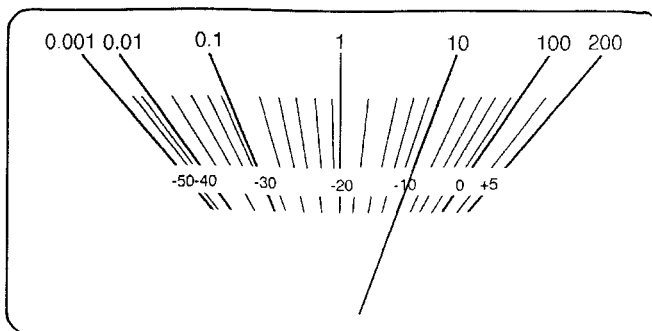


Fig. 4

■ Schematic Diagram

	Page
A MAIN CIRCUIT	16~19
B SP. SWITCH CIRCUIT	19
C HEADPHONES JACK CIRCUIT	19
D POWER SWITCH CIRCUIT	19
E LAMP (RIGHT) CIRCUIT	19
F LAMP (LEFT) CIRCUIT	19
G POWER TRANSFORMER CIRCUIT	19, 20
H POWER SUPPLY CIRCUIT	19, 20
I VOLTAGE ADJ. CIRCUIT [for (GC) area only]	20

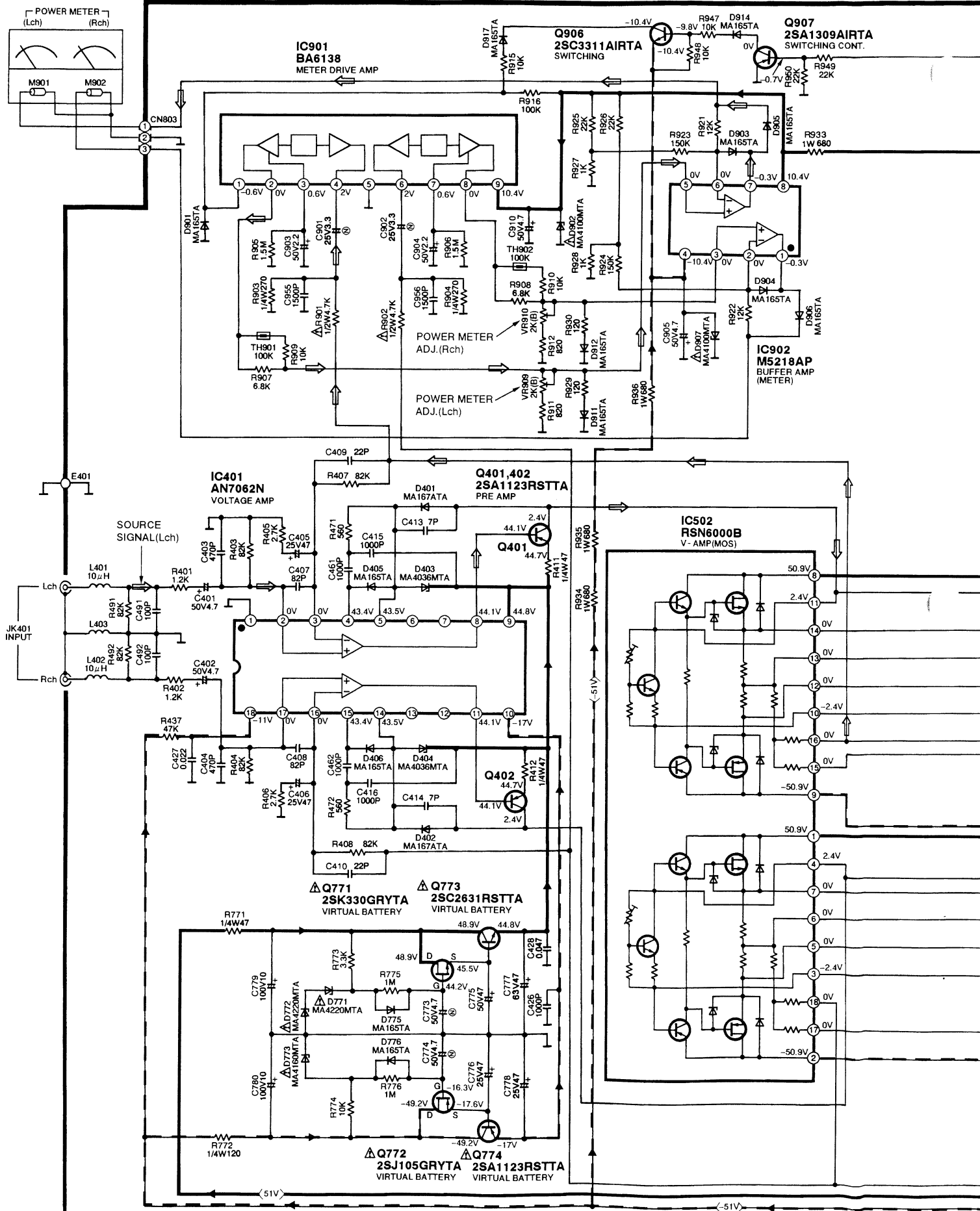
● This schematic diagram may be modified at any time with the development of new technology.

Notes:

- **S2** : Voltage adjustment switch in "220V-240V" position [for (GC) area only]
 - **S801** : Power "STANDBY ϕ /ON" switch (POWER, STANDBY ϕ /ON)
 - **S802** : Speaker select switch (SPEAKER A)
 - **S803** : Speaker select switch (SPEAKER B)
 - **VR909** : Power meter adjustment VR (L ch)
 - **VR910** : Power meter adjustment VR (R ch)
- Voltage values and waveforms are measured as indicated in the schematic diagram when test points between **TP701** and **TP701** , and between **TP703** and **TP704** are shorted.
 - Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
No mark: Power ON
 - Voltage and signal line

	: Source Signal Line
	: Positive Voltage Line
	: Negative Voltage Line
 - Important safety notice:
Components identified by  mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
 - **Caution!**
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.

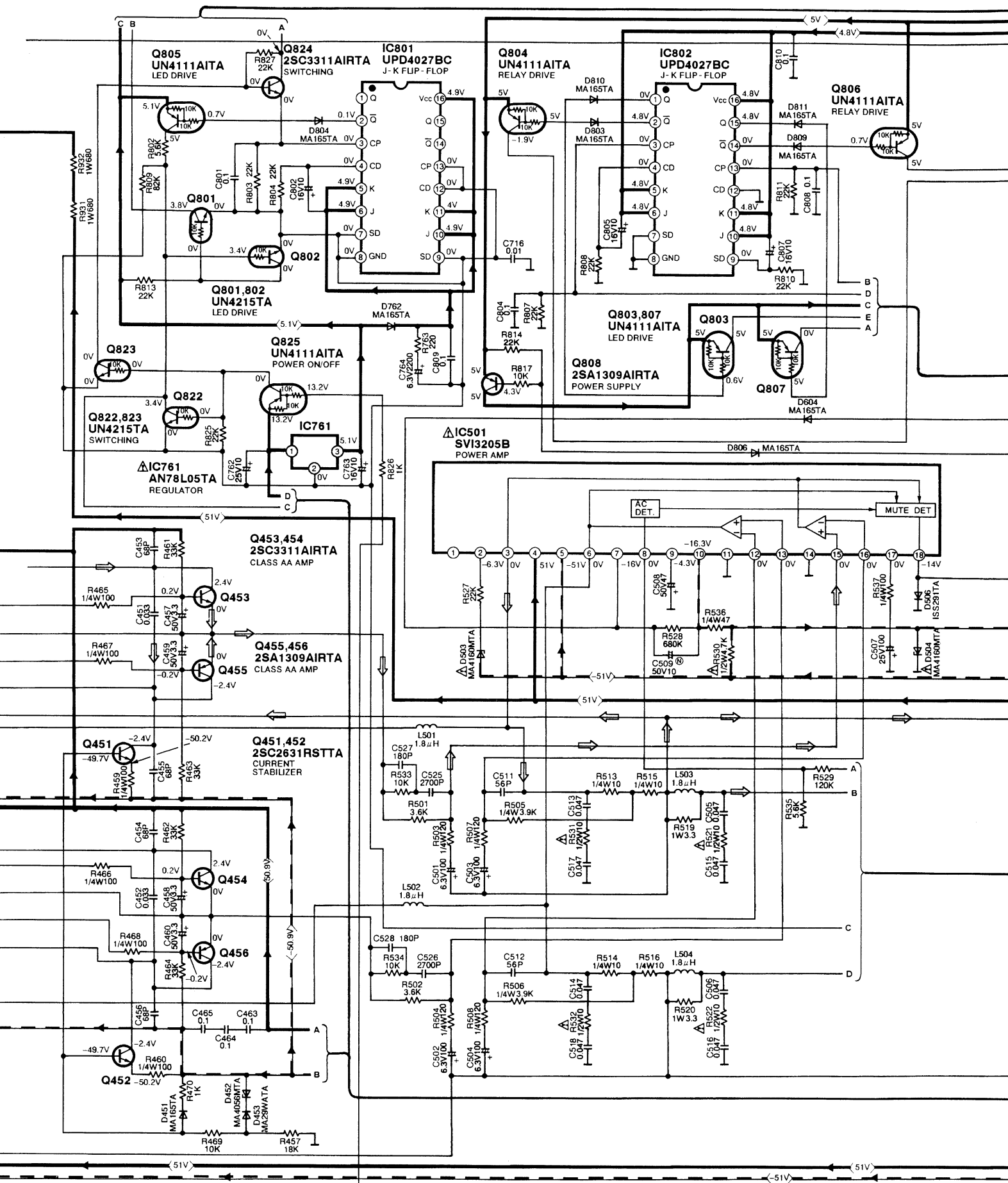
A MAIN CIRCUIT (P.C.Board: on pages 22,23)



————— : Positive Voltage Line

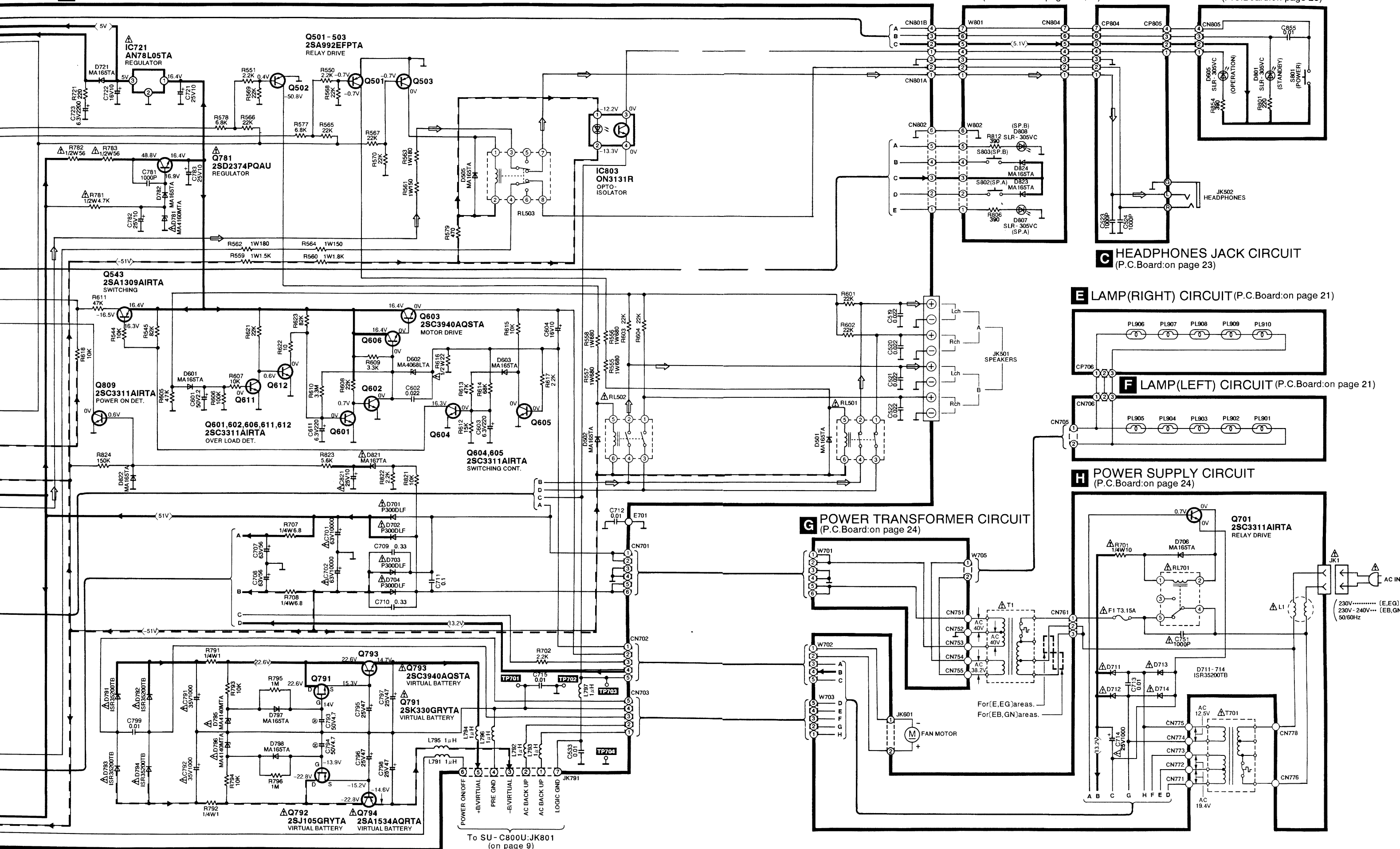
----- : Negative Voltage Line

————— : Source Signal Line



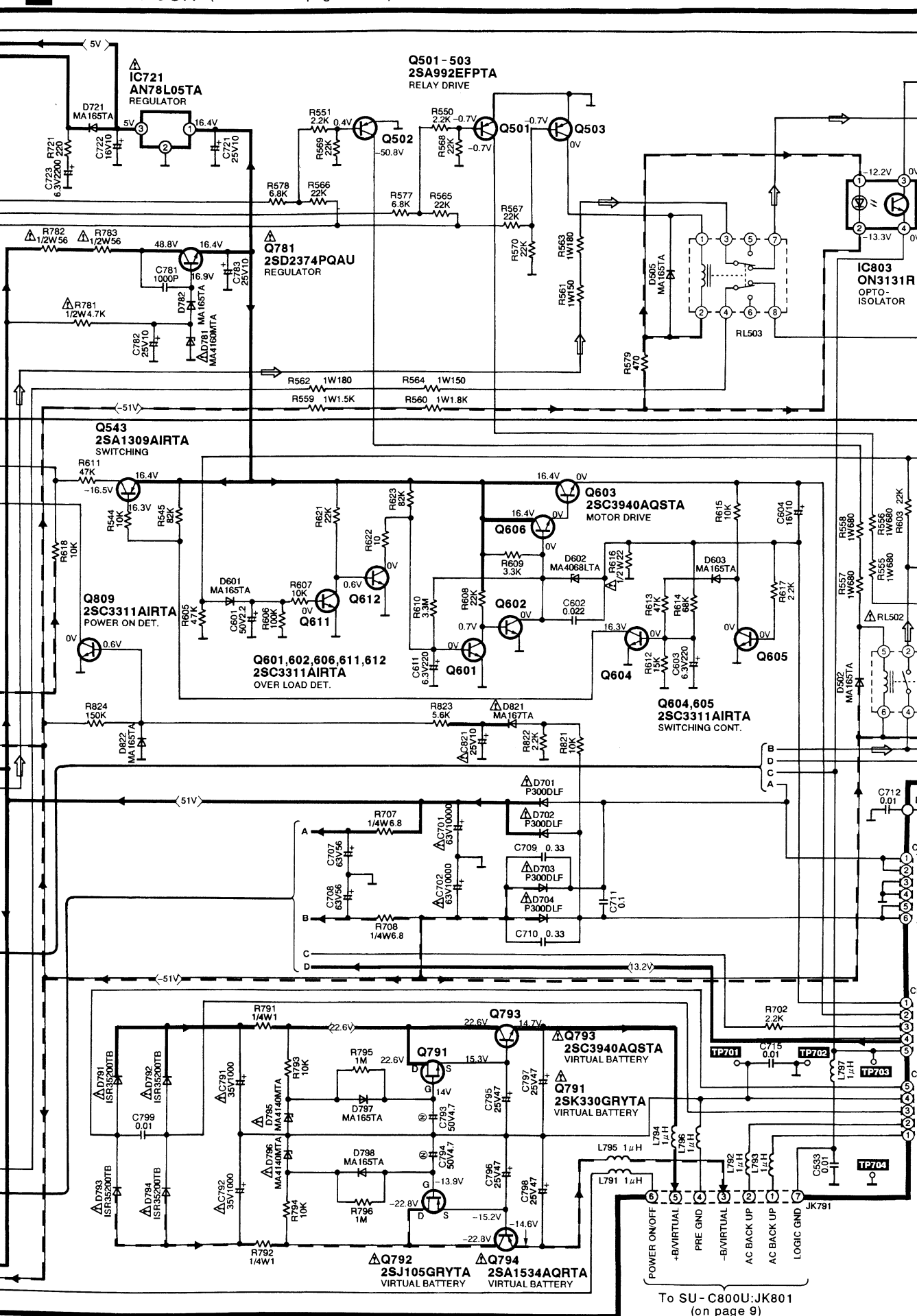
 : Positive Voltage Line
  : Negative Voltage Line
  : Source Signal Line

A MAIN CIRCUIT (P.C.Board: on pages 22,23)



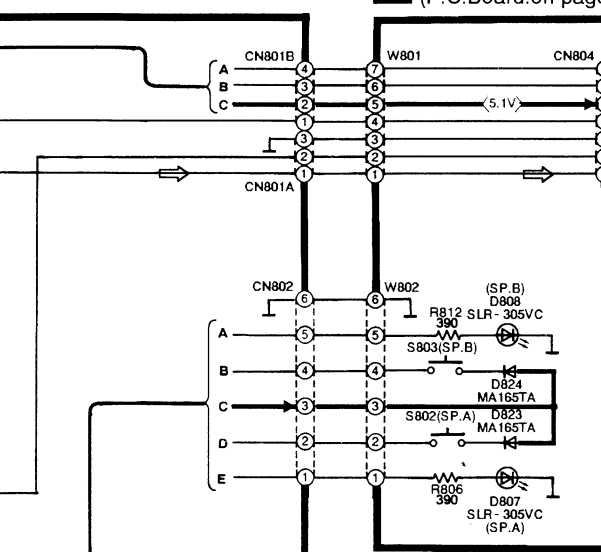
————— : Positive Voltage Line - - - - - : Negative Voltage Line ————> : Source Signal Line

A MAIN CIRCUIT (P.C.Board: on pages 22,23)

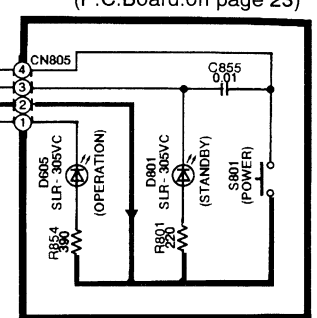


To SU - C800U:JK801
(on page 9)

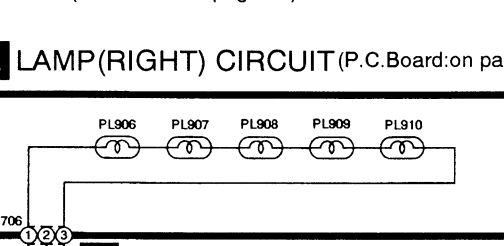
B SP. SWITCH CIRCUIT (P.C.Board: on pages 22,23)



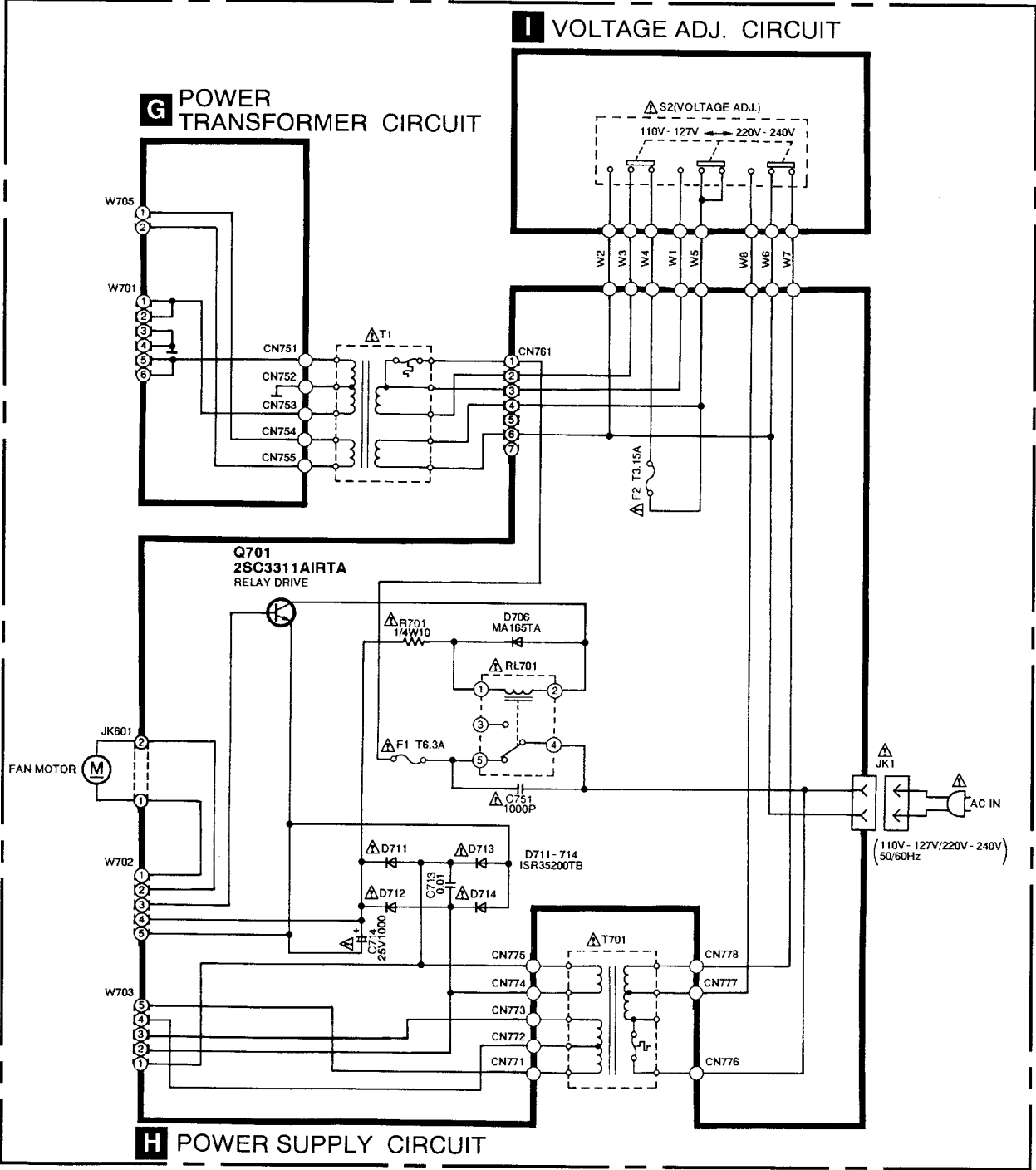
D POWER SWITCH CIRCUIT (P.C.Board: on page 23)



C HEADPHONES JACK CIRCUIT (P.C.Board: on page 23)



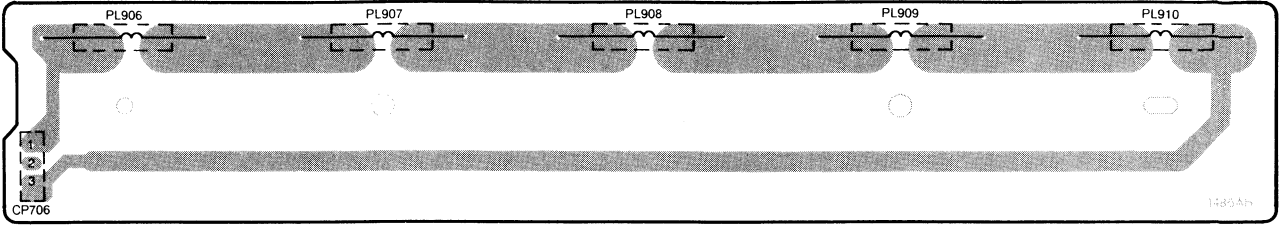
Power Source For[GC]area.(P.C.Board:on page 25)



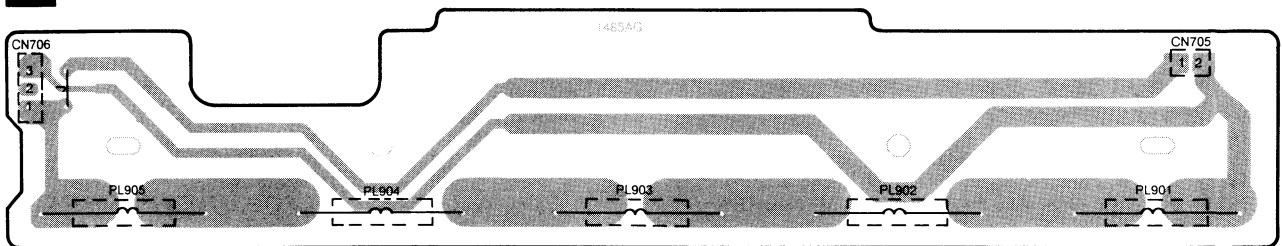
Printed Circuit Board Diagram

• This circuit board diagram may be modified at any time with the development of new technology.

E LAMP (RIGHT) P.C.B.(REP2154A-2S)

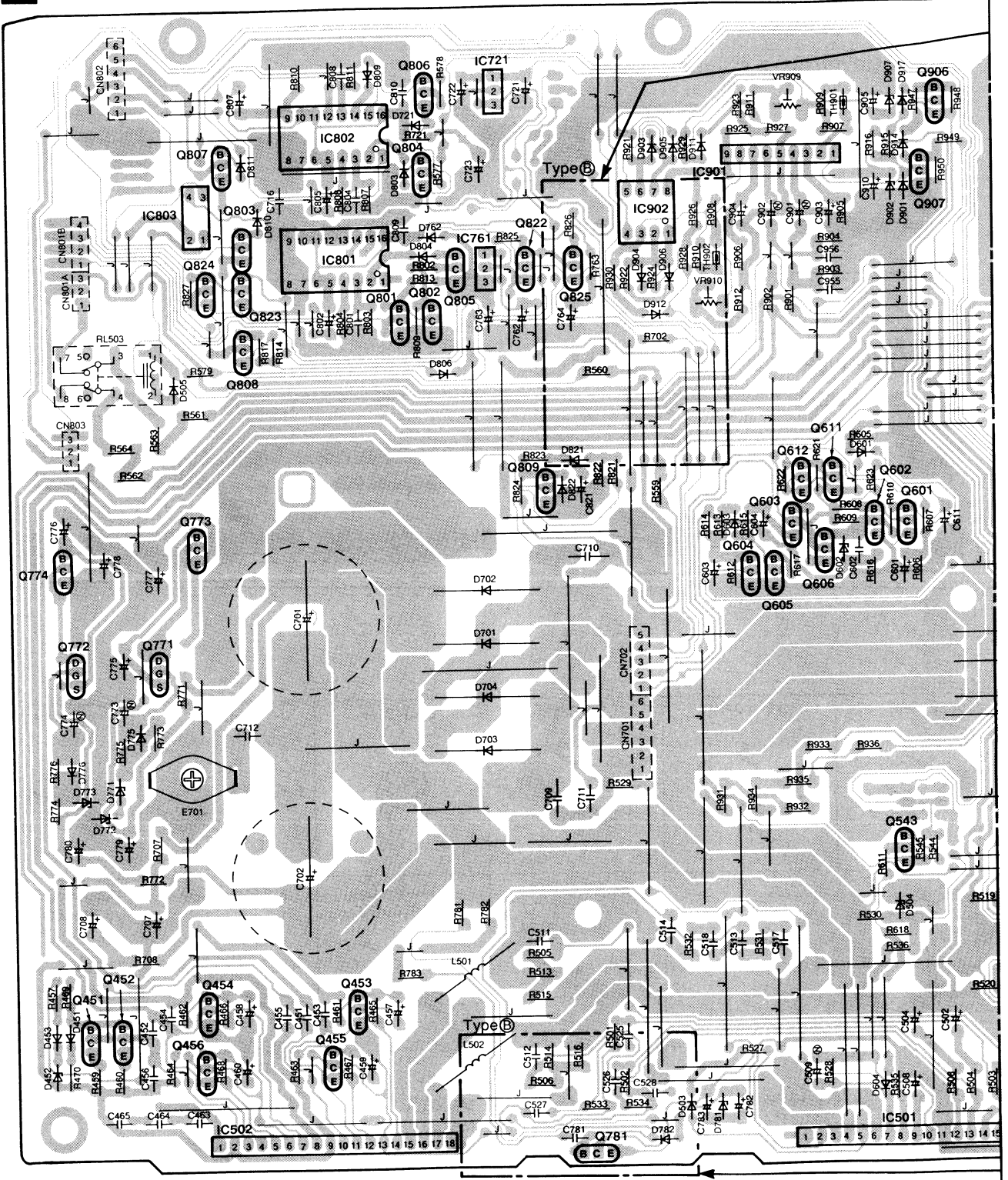


F LAMP (LEFT) P.C.B. (REP2154A-2S)



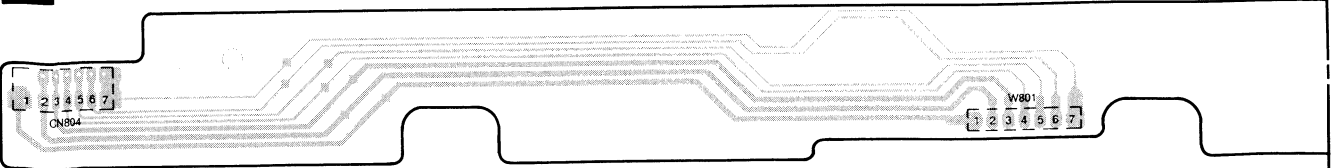
M5218AP 	UPD4027BC 	AN7062N 	ON3131R 	BA6138 	AN78L05TA
	RSN6000A SVI3205B	2SA992EFPTA 2SA1123RSTTA 2SC2631RSTTA 	2SA1534RTA 2SC3940AQSTA 	2SD2374PQAU 	2SJ105GRYTA 2SK330GRYTA
	2SA1309AIRTA 2SC3311AIRTA UN4111 UN4215			1SS291TA 	1SR3520TB
P300DLF 	MA4036MTA MA4056MTA MA4068L 			SLR-305VC 	

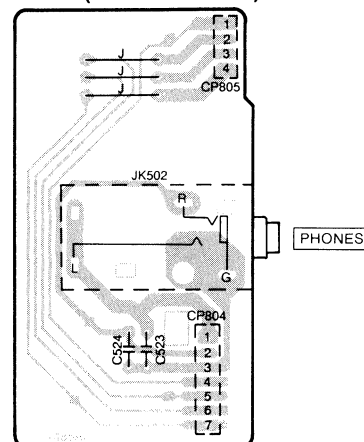
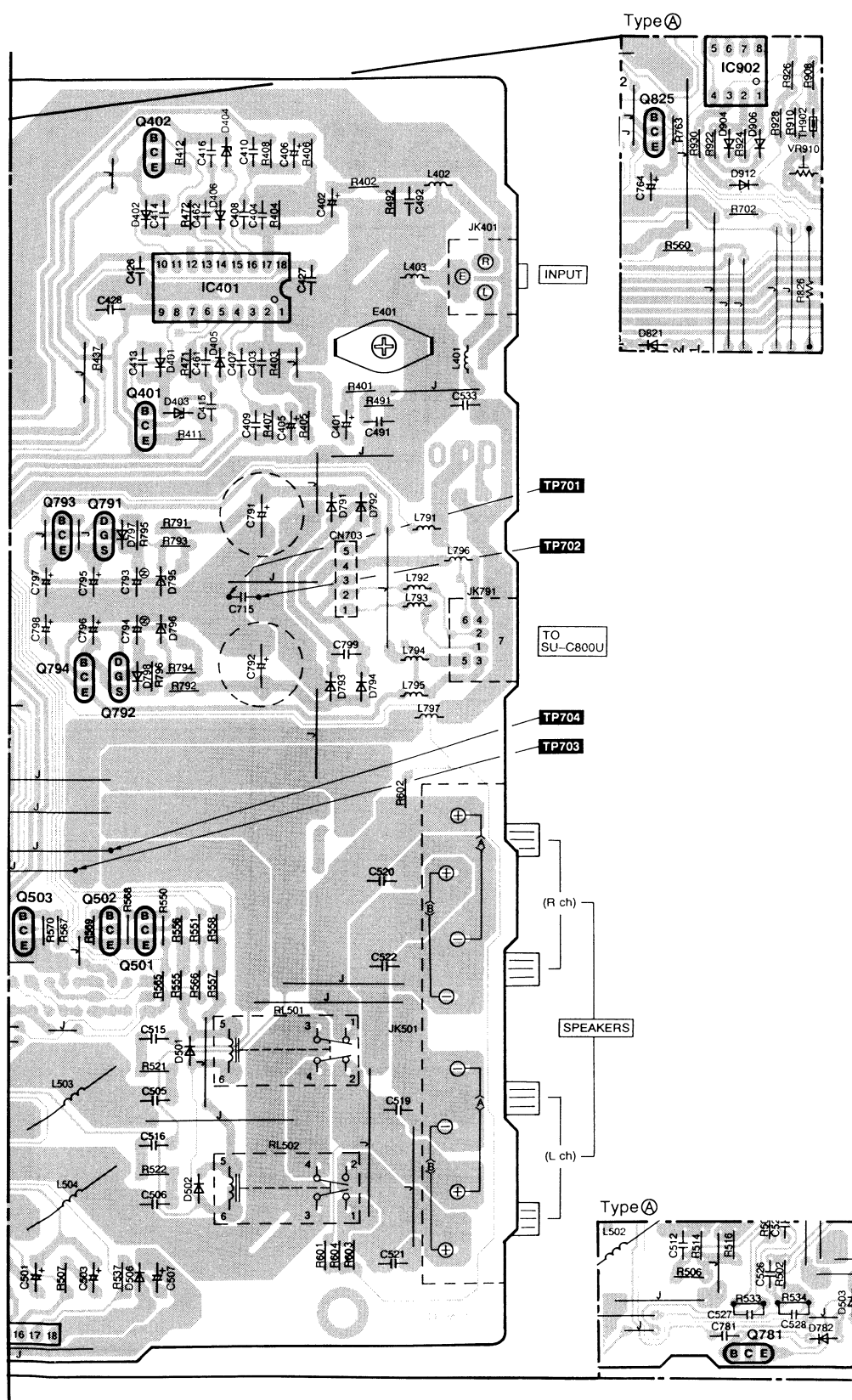
A MAIN P.C.B. (REP2153A-M...[E,EG,GC,GN] [There are two kinds of Type(A),(B) in the Main P.C.B.]
REP2153D-M...[EB]



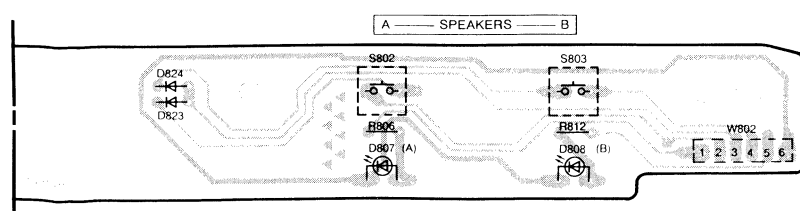
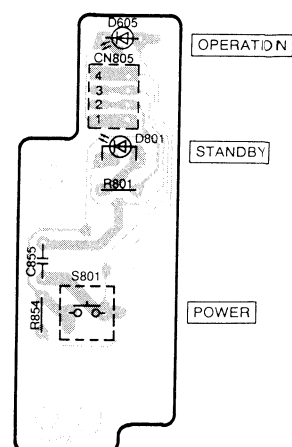
Notes:
Type (B) is different from Type (A) in part of the foil patterns and the parts.
Repair the unit with attention to the differences.

B SP. SWITCH P.C.B. (REP2154A-2S)





D POWER SWITCH
P.C.B. (REP2154A-2S)

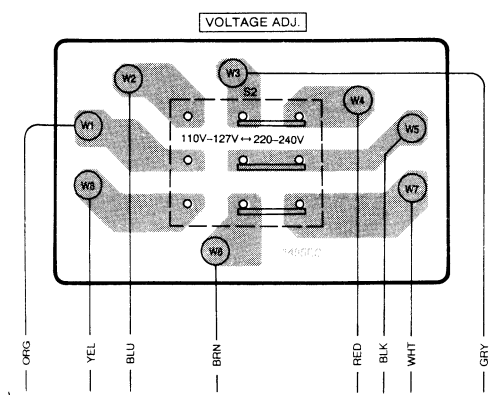
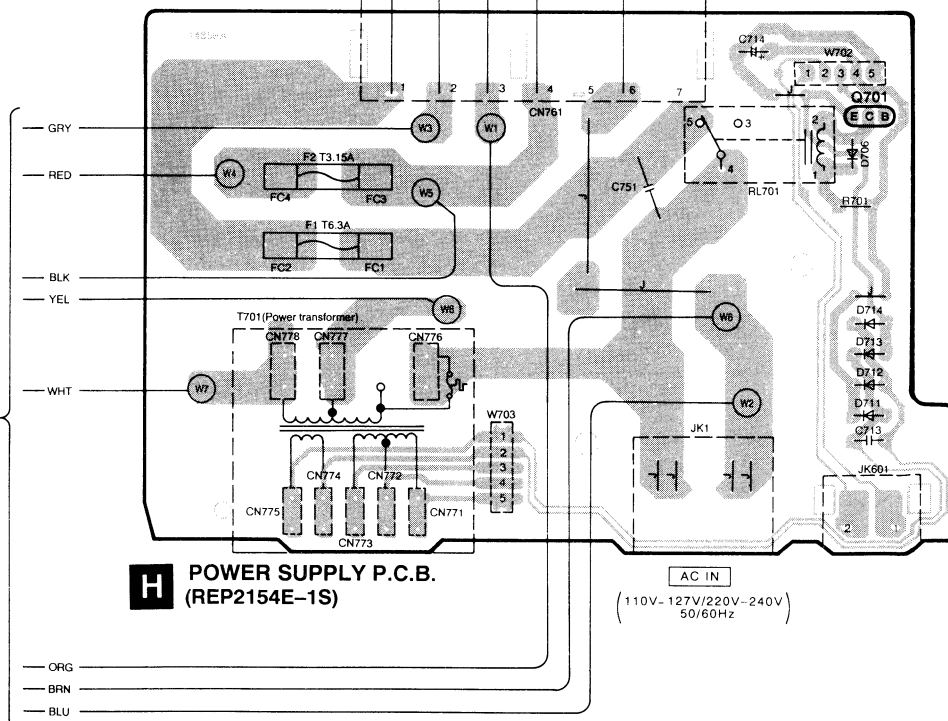
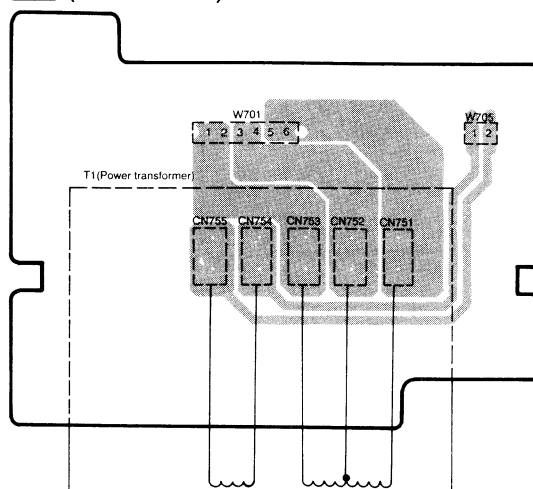


G

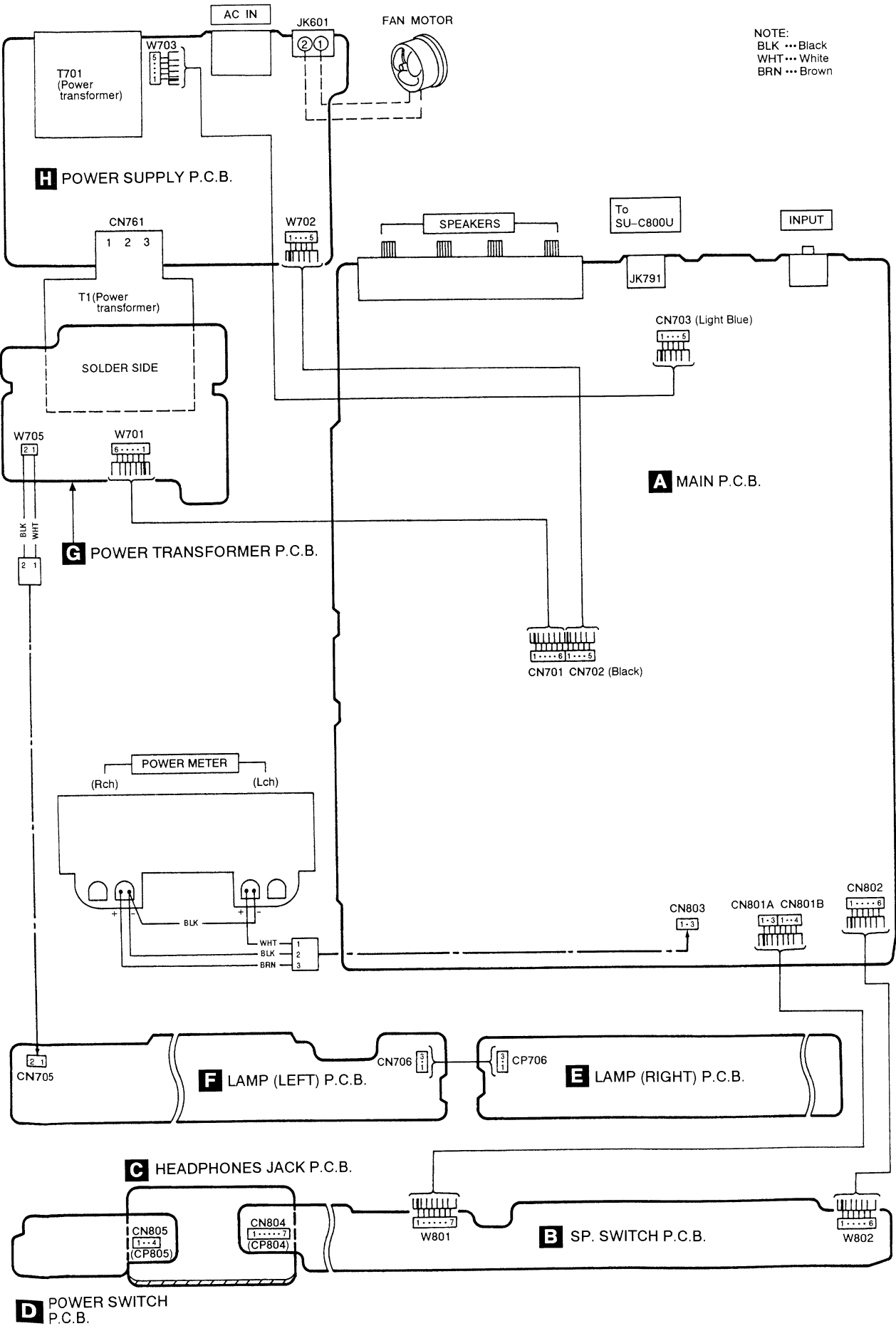


POWER SUPPLY P.C.B. (REP2154A-1S...[E,EG]) (AC IN)
 (REP2154C-1S...[EB])
 (REP2154J-1S...[GN]) (230V...240V...[E,EG])
 (50/60Hz) ([EB,GN])

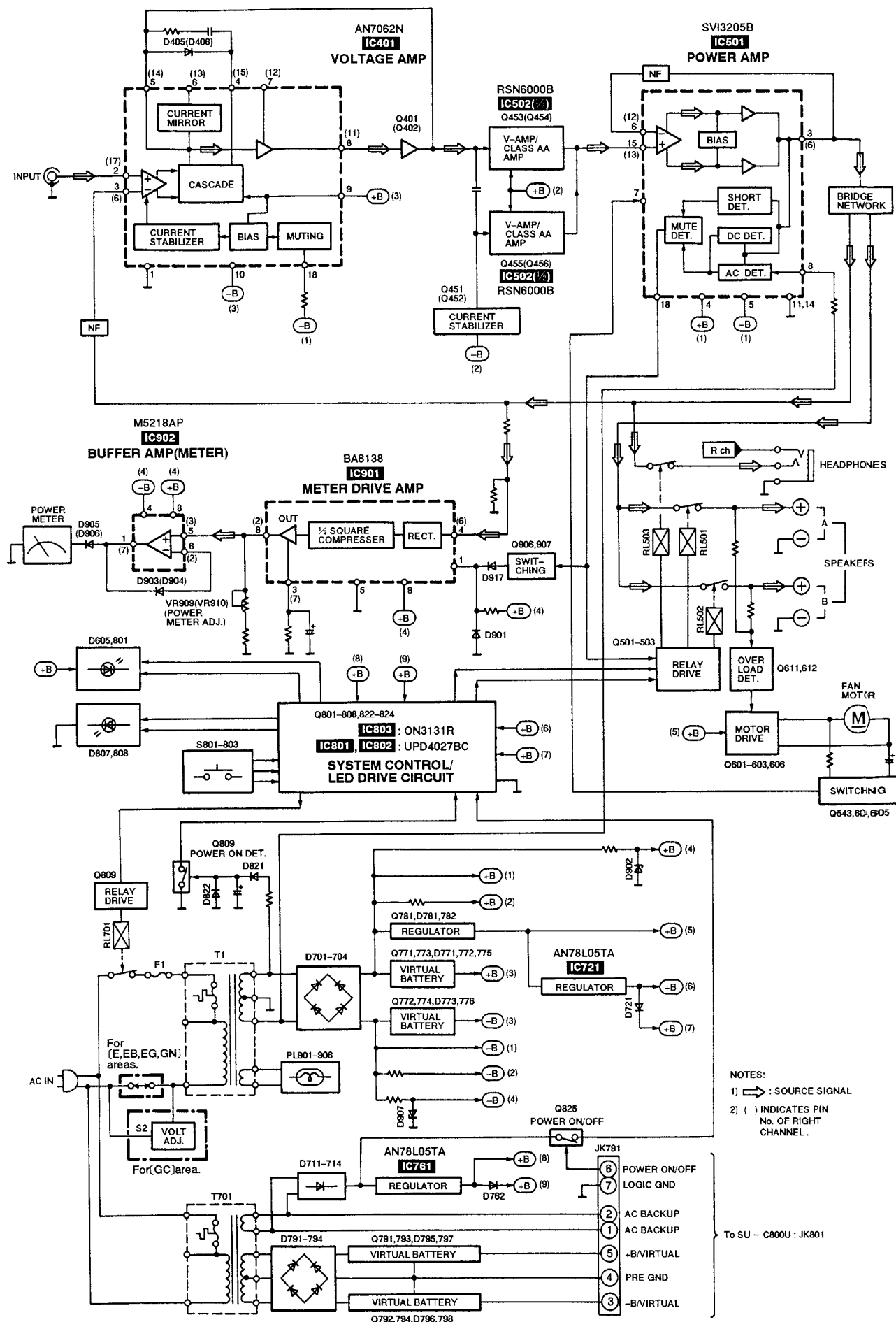
Power source P.C.B. For [GC] area.

I VOLTAGE ADJ. P.C.B. (REP2154E-1S)**G** POWER TRANSFORMER P.C.B. (REP2154E-1S)**H** POWER SUPPLY P.C.B. (REP2154E-1S)AC IN
(110V-127V/220V-240V)
50/60Hz

■ Wiring Connection Diagram



■ Block Diagram



Replacement Parts List

Notes: *Important safety notice:
Components identified by Δ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
*Remote Control Ass'y: Supply period for three years from termination of production.
*The "(SF)" mark denotes the standard part.
*<VRD>: indicates parts that are supplied by Video Recorder Division.

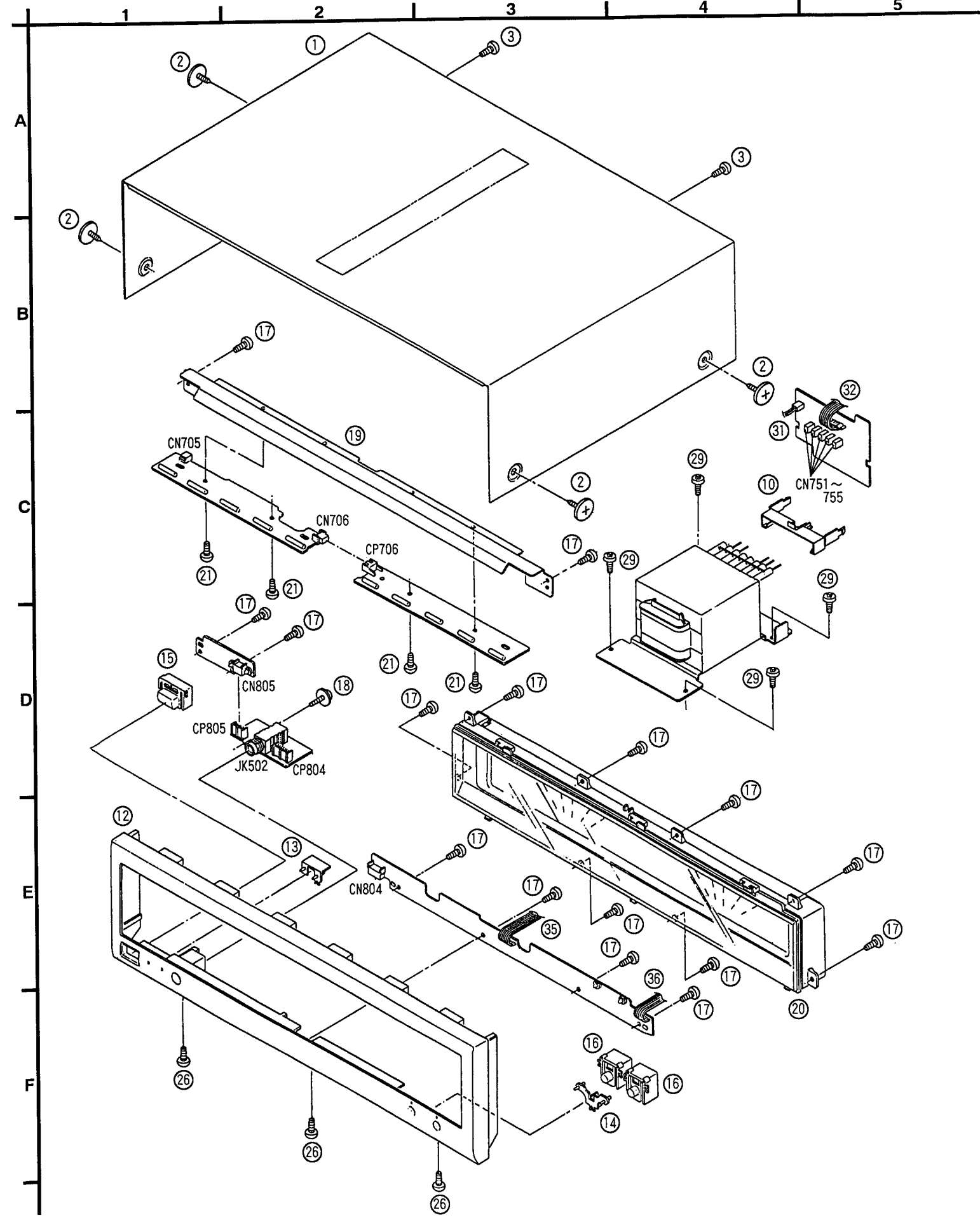
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
						DIODE(S)	
		INTEGRATED CIRCUIT(S)					
IC401	AN7062N	IC, VOLTAGE AMP.		D401, 402	MA167	DIODE	
IC501	SVI3205B	IC, POWER AMP.	Δ	D403, 404	MA4036MTA	DIODE	
IC502	RSN6000A	IC, V-AMP.		D405, 406	MA165	DIODE	
IC721	AN78L05TA	IC, REGULATOR	Δ	D451	MA165	DIODE	
IC761	AN78L05TA	IC, REGULATOR	Δ	D452	MA4056MTA	DIODE	
IC801, 802	UPD4027BC	IC, J-K FLIP-FLOP		D453	MA29WA	DIODE	
IC803	0N3131R	IC, OPTO-ISOLATOR		D501, 502	MA165	DIODE	
IC901	BA6138	IC, METER DRIVE AMP.		D503, 504	MA4160M	DIODE	Δ
IC902	M5218AP	IC, BUFFER AMP.		D505	MA165	DIODE	
				D506	1SS291TA	DIODE	
		TRANSISTOR(S)		D601	MA165	DIODE	
				D602	MA4068L	DIODE	
Q401, 402	2SA1123RSTTA	TRANSISTOR		D603, 604	MA165	DIODE	
Q451, 452	2SC2631RSTTA	TRANSISTOR		D605	SLR-305VC	LED	
Q453, 454	2SC3311AIRTA	TRANSISTOR		D701-704	P300DLF	DIODE	Δ
Q455, 456	2SA1309AIRTA	TRANSISTOR		D706	MA165	DIODE	
Q501-503	2SA992EFPTA	TRANSISTOR		D711-714	1SR35200TB	DIODE	Δ
Q543	2SA1309AIRTA	TRANSISTOR		D721	MA165	DIODE	
Q601	2SC3311AIRTA	TRANSISTOR		D762	MA165	DIODE	
Q602	2SC3311AIRTA	TRANSISTOR		D771, 772	MA4220MTA	DIODE	Δ
Q603	2SC3940AQSTA	TRANSISTOR		D773	MA4160M	DIODE	Δ
Q604-606	2SC3311AIRTA	TRANSISTOR		D775, 776	MA165	DIODE	
Q611, 612	2SC3311AIRTA	TRANSISTOR		D781	MA4160M	DIODE	Δ
Q701	2SC3311AIRTA	TRANSISTOR		D782	MA165	DIODE	
Q771	2SK330GRYTA	TRANSISTOR	Δ	D791-794	1SR35200TB	DIODE	Δ
Q772	2SJ105GRYTA	TRANSISTOR	Δ	D795, 796	MA4140M	DIODE	Δ
Q773	2SC2631RSTTA	TRANSISTOR	Δ	D797, 798	MA165	DIODE	
Q774	2SA1123RSTTA	TRANSISTOR	Δ	D801	SLR-305VC	LED	
Q781	2SD2374PQAU	TRANSISTOR	Δ	D803, 804	MA165	DIODE	
Q791	2SK330GRYTA	TRANSISTOR	Δ	D806	MA165	DIODE	
Q792	2SJ105GRYTA	TRANSISTOR	Δ	D807, 808	SLR-305VC	LED	
Q793	2SC3940AQSTA	TRANSISTOR	Δ	D809-811	MA165	DIODE	
Q794	2SA1534RTA	TRANSISTOR	Δ	D821	MA167	DIODE	Δ
Q801, 802	UN4215	TRANSISTOR		D822-824	MA165	DIODE	
Q803-807	UN4111	TRANSISTOR		D901	MA165	DIODE	
Q808	2SA1309AIRTA	TRANSISTOR		D902	MA4100MTA	DIODE	Δ
Q809	2SC3311AIRTA	TRANSISTOR		D903-906	MA165	DIODE	
Q822, 823	UN4215	TRANSISTOR		D907	MA4100MTA	DIODE	Δ
Q824	2SC3311AIRTA	TRANSISTOR		D911, 912	MA165	DIODE	
Q825	UN4111	TRANSISTOR		D914	MA165	DIODE	
Q906	2SC3311AIRTA	TRANSISTOR		D917	MA165	DIODE	
Q907	2SA1309AIRTA	TRANSISTOR				VARIABLE RESISTOR(S)	

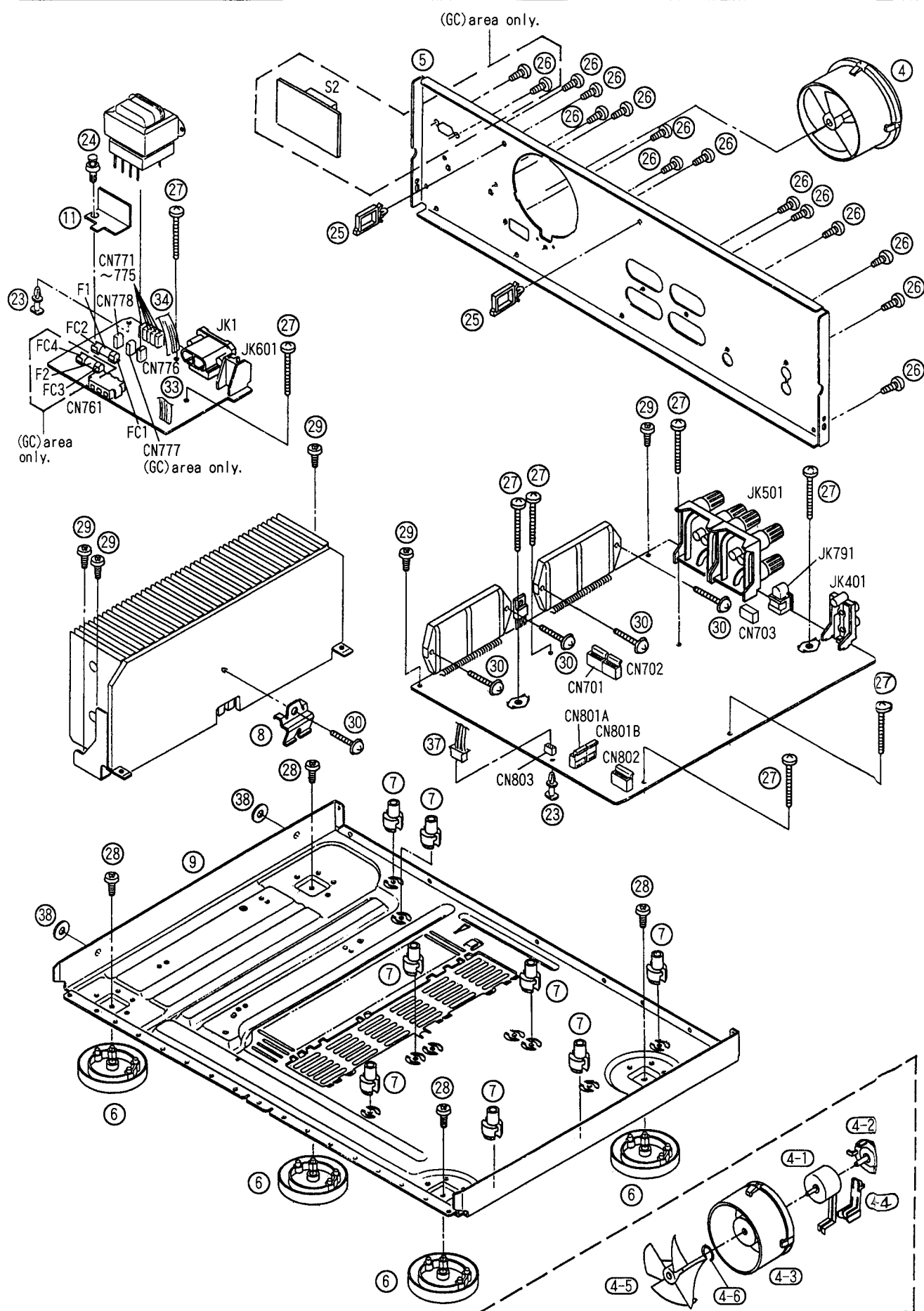
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
VR909	EVNDXAA00B23	V. R. POWER METER ADJ.		CN802	RJS1A6606	CONNECTOR (6P)	
VR910	EVNDXAA00B23	V. R. POWER METER ADJ.		CN803	RJP3G182A	CONNECTOR (3P)	
				CN804	RJU057W007	SOCKET (7P)	
		THERMISTOR (S)		CN805	RJU057W004	SOCKET (4P)	
				CP706	SJT30345JQ	CONNECTOR (3P)	
TH901, 902	ERTD2ZHL104T	THERMISTOR		CP804	RJT057W007-1	CONNECTOR (7P)	
				CP805	RJT057W004-1	CONNECTOR (4P)	
		COIL (S)					
						EARTH TERMINAL	
L1	SLQZ650MH49	COIL	△ (E, EB, EG, GN)				
L401, 402	ELEXT100KA9	COIL		E401	SNE1004-2	GND PLATE	
L403	BL02RN1R62T2	COIL		E701	SNE1004-2	GND PLATE	
L501-504	SLQY18G-10	COIL					
L791-797	ELEXT1R0KA9	COIL				FUSE HOLDER	
		TRANSFORMER (S)		FC1, 2	EYF52BC	FUSE HOLDER	
				FC3, 4	EYF52BC	FUSE HOLDER	(GC)
T1	RTP1P5B005-W	POWER TRANSFORMER (SUB)	△ (E, EB, EG, GN)				
T1	RTP1P5E019-W	POWER TRANSFORMER (SUB)	△ (GC)			RELAY	
T701	RTP1J5B001-W	POWER TRANSFORMER (MAIN)	△				
				RL501, 502	RSY0013M-0	RELAY	△
		LAMP (S)		RL503	RSY0020M-R	RELAY	
				RL701	RSY0019M-0	RELAY	△
PL901-910	XAMR131	LAMP					
						JACK (S)	
		FUSE (S)					
				JK1	SJS9236	AC INLET	△ (E, EB, EG, GC)
F1	XBA2C31TB0	FUSE, 250V, 3. 15A	△ (E, EB, EG, GN)	JK1	SJSD16	AC INLET	△ (GN)
F1	XBA2C63TB0	FUSE, 250V, 6. 3A	△ (GC)	JK401	SJF3068-7N	JACK INPUT	
F2	XBA2C31TB0	FUSE, 250V, 3. 15A	△ (GC)	JK501	RJH4801M-1	SPEAKER TERMINAL	(E, EG, GC, GN)
				JK501	RJH4801M-2	SPEAKER TERMINAL	(EB)
		SWITCH (ES)		JK502	RJG63TA01	HEADPHONE JACK	
				JK601	RJS1A7402-1	CONNECTOR, FAN MOTOR	
S2	ESD26840A	SW, VOLTAGE ADJ.	△ (GC)	JK791	RJS1D0706	SOCKET (7P)	
S801	EVQ21405R	SW, POWER					
S802	EVQ21405R	SW, SPEAKER A					
S803	EVQ21405R	SW, SPEAKER B					
		CONNECTOR (S)					
CN701	RJS1A6606	CONNECTOR (6P)					
CN702, 703	RJS1A6605	CONNECTOR (5P)					
CN705	RJP2G17ZA	CONNECTOR (2P)					
CN706	SJS50382JQH	SOCKET (3P)					
CN751-755	RJS1A1101T1	CONNECTOR					
CN761	SJS305-1	CONNECTOR	(E, EB, EG, GN)				
CN761	SJS702-2	CONNECTOR	(GC)				
CN771-776	RJS1A1101T1	CONNECTOR					
CN777	RJS1A1101T1	CONNECTOR	(GC)				
CN778	RJS1A1101T1	CONNECTOR					
CN801A	RJS1A6603	CONNECTOR (3P)					
CN801B	RJS1A6604	CONNECTOR (4P)					

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R609	ERDS2TJ332	1/4W 3. 3K	R907, 908	ERDS2TJ682T	1/4W 6. 8K
			R610	ERDS2TJ335T	1/4W 3. 3M	R909, 910	ERDS2TJ103	1/4W 10K
			R611	ERDS2TJ473	1/4W 47K	R911, 912	ERDS2TJ821	1/4W 820
R401, 402	ERDAS3G122	1/4W 1. 2K	R612	ERDS2TJ153	1/4W 15K	R915	ERDS2TJ103	1/4W 10K
R403, 404	ERDAS3G823T	1/4W 82K	R613	ERDS2TJ473	1/4W 47K	R916	ERDS2TJ104	1/4W 100K
R405, 406	ERDAS3G272T	1/4W 2. 7K	R614	ERDS2TJ683	1/4W 68K	R921, 922	ERDS2TJ123	1/4W 12K
R407, 408	ERDAS3G823T	1/4W 82K	R615	ERDS2TJ103	1/4W 10K	R923, 924	ERDS2TJ154	1/4W 150K
R411, 412	ERDAF2VJ470T	1/4W 47	R616 △	ERDS1FVJ220T	1/2W 22	R925, 926	ERDS2TJ223	1/4W 22K
R437	ERDS2TJ473	1/4W 47K	R617	ERDS2TJ222	1/4W 2. 2K	R927, 928	ERDS2TJ102	1/4W 1K
R457	ERDAS3G183T	1/4W 18K	R618	ERDS2TJ103	1/4W 10K	R929, 930	ERDS2EJ121	1/4W 120
R459, 460	ERDAF2VJ101T	1/4W 100	R621	ERDS2TJ223	1/4W 22K	R931-936	ERG1SJ681E	1W 680
R461-464	ERDS2TJ333	1/4W 33K	R622	ERDS2TJ100	1/4W 10	R947, 948	ERDS2TJ103	1/4W 10K
R465-468	ERDAF2VJ101T	1/4W 100	R623	ERDS2TJ823T	1/4W 82K	R949, 950	ERDS2TJ223	1/4W 22K
R469	ERDAS3G103T	1/4W 10K	R701 △	ERD25FVJ100T	1/4W 10			CAPACITORS
R470	ERDAS3G102T	1/4W 1K	R702	ERDS2TJ222	1/4W 2. 2K			
R471, 472	ERDS2TJ561	1/4W 560	R707, 708	ERDAF2VJ688T	1/4W 6. 8			
R491, 492	ERDAS3G823T	1/4W 82K	R721	ERDS2TJ221	1/4W 220	C401, 402	ECA1HPXS4R7B	50V 4. 7U
R501, 502	ERDS2TJ362T	1/4W 3. 6K	R763	ERDS2TJ221	1/4W 220	C403, 404	ECKD1H471KB	50V 470P
R503, 504	ERDAF2VJ121T	1/4W 120	R771	ERDAF2VJ470T	1/4W 47	C405, 406	ECA1EPX470TB	25V 47U
R505, 506	ERDAF2VJ392T	1/4W 3. 9K	R772	ERDAF2VJ121T	1/4W 120	C407, 408	ECBT1H820KB5	50V 82P
R507, 508	ERDAF2VJ121T	1/4W 120	R773	ERDS2TJ332	1/4W 3. 3K	C409, 410	ECCR2H220J5	500V 22P
R513-516	ERDAF2VJ100T	1/4W 10	R774	ERDS2TJ103	1/4W 10K	C413, 414	ECCV2H070D	500V 7P
R519, 520	ERX1SJ3R3E	1W 3. 3	R775, 776	ERDS2TJ105T	1/4W 1M	C415, 416	ECBT1H102KB5	50V 1000P
R521, 522△	ERDS1FVJ100T	1/2W 10	R781 △	ERDS1FVJ472T	1/2W 4. 7K	C426	ECBT1H102KB5	50V 1000P
R527	ERDS2TJ223	1/4W 22K	R782, 783△	ERDS1FVJ560T	1/2W 56	C427	ECBT1E223ZF	25V 0. 022U
R528	ERDS2TJ684	1/4W 680K	R791, 792	ERDAF2VJ1R0T	1/4W 1	C428	ECQV1H473JM3	50V 0. 047U
R529	ERDS2TJ124T	1/4W 120K	R793, 794	ERDS2TJ103	1/4W 10K	C451, 452	ECKR1H333ZF5	50V 0. 033U
R530 △	ERDS1FVJ472T	1/2W 4. 7K	R795, 796	ERDS2TJ105T	1/4W 1M	C453-456	ECCV2H680K	500V 68P
R531, 532△	ERDS1FVJ100T	1/2W 10	R801	ERDS2TJ221	1/4W 220	C457-460	RCE1HKA3R3BG	50V 3. 3U
R533, 534	ERDS2TJ103	1/4W 10K	R802	ERDS2TJ562	1/4W 5. 6K	C461, 462	ECBT1H102KB5	50V 1000P
R535	ERDS2TJ562	1/4W 5. 6K	R803, 804	ERDS2TJ223	1/4W 22K	C463-465	ECBT1H104ZF5	50V 0. 1U
R536	ERDAF2VJ470T	1/4W 47	R806	ERDS2TJ391	1/4W 390	C491, 492	ECBT1H101KB5	50V 100P
R537	ERDAF2VJ101T	1/4W 100	R807, 808	ERDS2TJ223	1/4W 22K	C501-504	ECA0JPXS101B	6. 3V 100U
R544	ERDS2TJ103	1/4W 10K	R809	ERDS2TJ823T	1/4W 82K	C505, 506	ECQV1H473JM3	50V 0. 047U
R545	ERDS2TJ823T	1/4W 82K	R810, 811	ERDS2TJ223	1/4W 22K	C507	ECA1EM101B	25V 100U
R550, 551	ERDS2TJ222	1/4W 2. 2K	R812	ERDS2TJ391	1/4W 390	C508	ECA1HM470B	50V 47U
R555-558	ERG1SJ681E	1W 680	R813, 814	ERDS2TJ223	1/4W 22K	C509	ECEA1HN100SB	50V 10U
R559	ERG1SJ152E	1W 1. 5K	R817	ERDS2TJ103	1/4W 10K	C511, 512	ECBT1H560J5	50V 56P
R560	ERG1SJ182E	1W 1. 8K	R821	ERDS2TJ103	1/4W 10K	C513-518	ECQV1H473JM3	50V 0. 047U
R561, 562	ERG1SJ151E	1W 150	R822	ERDS2TJ222	1/4W 2. 2K	C519-522	ECQB1H223JF3	50V 0. 022U
R563, 564	ERG1SJ181E	1W 180	R823	ERDS2TJ562	1/4W 5. 6K	C523, 524	ECBT1H102KB5	50V 1000P
R565-570	ERDS2TJ223	1/4W 22K	R824	ERDS2TJ154	1/4W 150K	C525, 526	ECBT1C272KR5	16V 2700P
R577, 578	ERDS2TJ682T	1/4W 6. 8K	R825	ERDS2TJ223	1/4W 22K	C527, 528	ECBT1H181KB5	50V 180P
R579	ERDS2TJ471	1/4W 470	R826	ERDS2TJ102	1/4W 1K	C533	ECBT1C103NS5	16V 0. 01U
R601-604	ERDS2TJ223	1/4W 22K	R827	ERDS2TJ223	1/4W 22K	C601	ECEA1HKA2R2B	50V 2. 2U
R605	ERDS2TJ473	1/4W 47K	R854	ERDS2TJ391	1/4W 390	C602	ECBT1E223ZF	25V 0. 022U
R606	ERDS2TJ104	1/4W 100K	R901, 902△	ERDS1FVJ472T	1/2W 4. 7K	C603	RCE0JKA221BV	6. 3V 220U
R607	ERDS2TJ103	1/4W 10K	R903, 904	ERDAF2VJ271T	1/4W 270	C604	RCE1CKA100BG	16V 10U
R608	ERDS2TJ223	1/4W 22K	R905, 906	ERDS2TJ155	1/4W 1. 5M	C611	RCE0JKA221BV	6. 3V 220U

Cabinet Parts Location





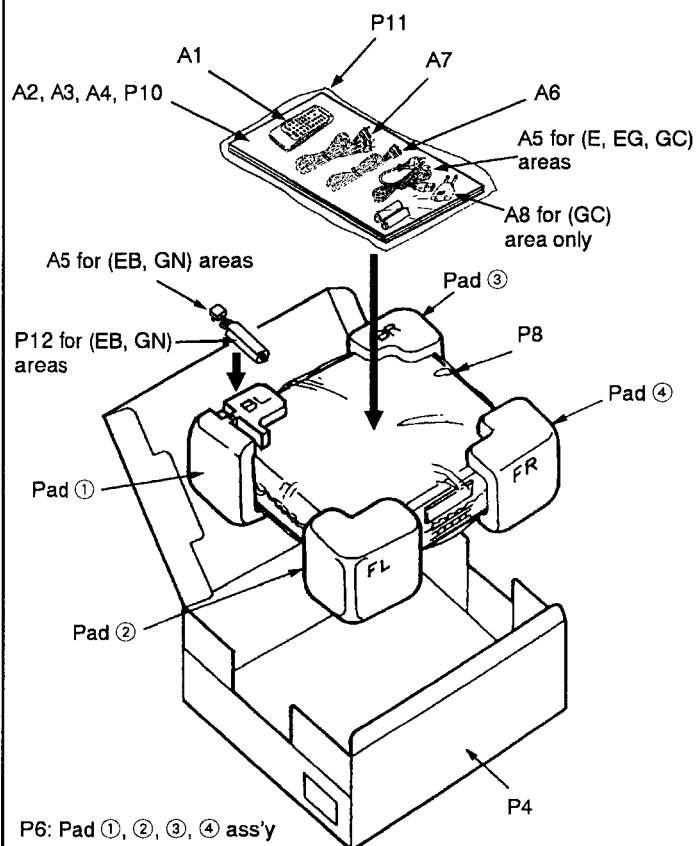
Note: The reference number SA represent the grease and tool used for this unit.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS LIST	
1	RKMD219F-K	TOP CABINET	
2	SNE2129-1	SCREW	
3	XTBS3+8JFZ1	SCREW	
4	REM0020-1	FAN ASS'Y	
4-1	MDN-4RB4MRC	FAN MOTOR	
4-2	RMQ0208-K	FAN MOTOR COVER	
4-3	RMQ0209-K	FAN CASE	
4-4	RMQ0212-K	FAN TERMINAL	
4-5	SHE232-1	FAN	
4-6	SUS271	SPRING	
5	RGR0227A-C	REAR PANEL	(E, EG)
5	RGR0227B-B1	REAR PANEL	(EB)
5	RGR0227C-A1	REAR PANEL	(GC)
5	RGR0227A-E1	REAR PANEL	(GN)
6	RKA0053-A	FOOT	
7	RKQ0089	P. C. B. SUPPORT	
8	RMCO158	TRANSISTOR HOLDER	
9	RMKO200-3	CHASSIS	
10	RMNO217	HOLDER	
11	RMZ0354	COVER	
12	RFKGEA900SEK	FRONT PANEL ASS'Y	
13	RGL0301-Q	PANEL LIGHT A	
14	RGL0302-Q	PANEL LIGHT B	
15	RGU1270-K	BUTTON, POWER	
16	RGU1271-K	BUTTON, SPEAKER	
17	RHD26017	SCREW	
18	RHD26018	SCREW	
19	RMA0869	ANGLE	
20	RSE0006	METER ASS'Y	
21	XTBS26+8J	SCREW	
23	SHR8006	SPACER	
24	SHR9112	LATCH	
25	SHR9814	SPACER	
26	XTBS3+8JFZ1	SCREW	
27	XTB3+20JFZ	SCREW	
28	XTB3+6G	SCREW	
29	XTB3+8JFZ	SCREW	
30	XTW3+15T	SCREW	
31	REX0740	WIRE ASS'Y (2P) (W705)	
32	FWJ3906440QQ	FLAT CABLE (6P) (W706)	
33	FWJ1805480XX	FLAT CABLE (5P) (W702)	
34	FWJ3905390QQ	FLAT CABLE (5P) (W703)	
35	FWJ1807220KX	FLAT CABLE (7P) (W801)	
36	FWJ1806090KX	FLAT CABLE (6P) (W802)	
37	REX0741	WIRE ASS'Y (3P) (CN803)	
38	RMG0332-K	RUBBER	

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG2627	PACKING CASE	(E, EG, GC, GN)
P1	RPG2628	PACKING CASE	(EB)
P2	RPQ0573	SPACER	
P3	RPQ0553	SPACER	
P4	RPG2624	PACKING CASE	
P5	RPG2617	PACKING CASE (SU-C800U)	
P6	RPN0752	PAD	
P7	RPN0917	PAD (SU-C800U)	
P8	SPP730	PROTECTION COVER	
P9	SPP756	PROTECTION COVER (SU-C800U)	
P10	RPQ0164	PAD	
P11	RPF0139	PROTECTION COVER	
P12	RPH0032	MIRROR SHEET	(EB, GN)
		ACCESSORIES	
A1	RAK-SU180WH	REMOTE CONTROL TRANSMITTER	
A1-1	RKK0057-K	BATTERY COVER	
A2	RQA0013	WARRANTY CARD	(E, EB, EG)
A2	RQX7433ZA	WARRANTY CARD	(GN)
A3	RQCB0169	SERVICE CENTER LIST	
A4	RFKSEA800SEK	INSTRUCTION MANUAL	(E)
A4	RQT3101-B	INSTRUCTION MANUAL	(EB)
A4	RQT3100-E	INSTRUCTION MANUAL	(EG)
A4	RQT3101-B	INSTRUCTION MANUAL	(GN)
A4	RQT3099-G	INSTRUCTION MANUAL	(GC)
A5	RJA0019-2K	AC POWER SUPPLY CORD	△ (SF) (E, EG, GC)
A5	VJA0733	AC POWER SUPPLY CORD	△ (SF) <VRD> (EB)
A5	RJA0036-K	AC POWER SUPPLY CORD	△ (GN)
A6	RJL6D001B10	AMP. CONNECTION CABLE	
A7	SJP2276	STEREO CONNECTION CABLE	
A8	SJP5213-2	POWER PLUG ADAPTOR	(GC)
		GREASE OR JIG/TOOL	
SA1	RFKX0002	COMPOUND GREASE	

■ Packaging

SE-A900S: Power amplifier



SU-C800U: Control amplifier

